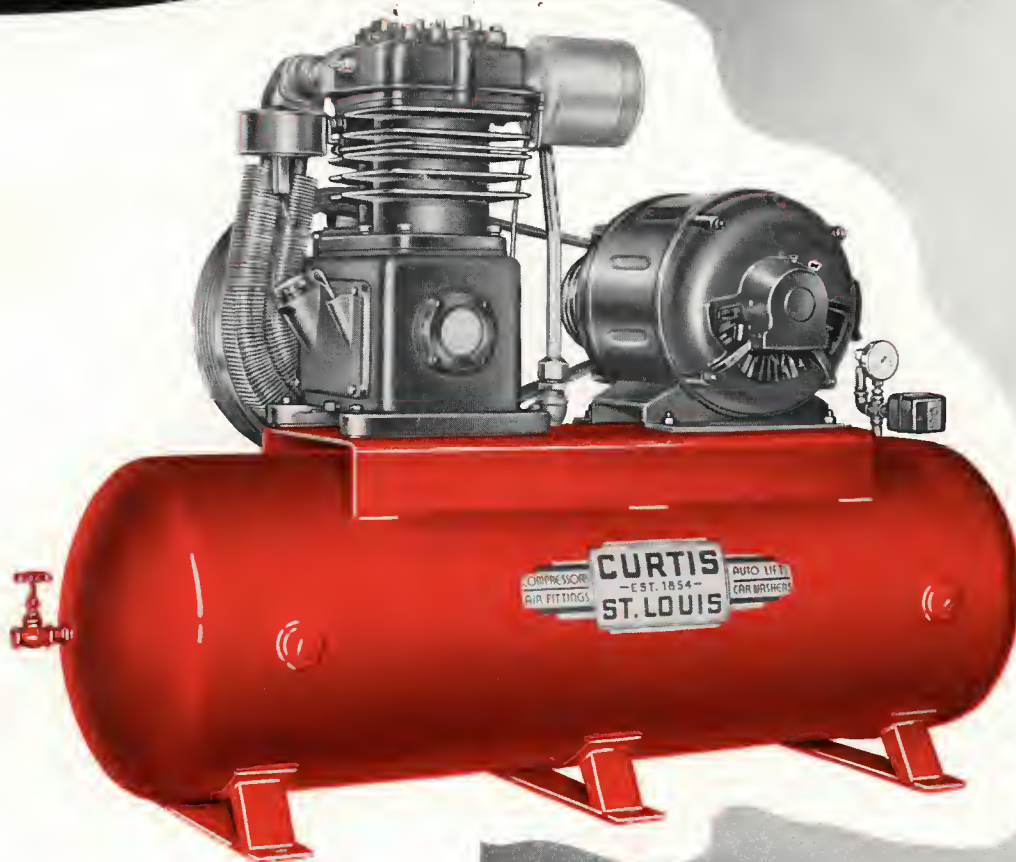


1854 **100th** 1954
year

Curtis

AIR COMPRESSORS



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO.
St. Louis 20, Missouri, U. S. A.

THE

Curtis

20 ACRE PLANT



Curtis Products are produced in this large 20-acre plant...complete from drawing board to shipping department. Established in 1854, Curtis has a century of accumulated experience in engineering, designing and manufacturing...knowledge not obtainable in any other way.

This reflected experience and "one-profit" plan of manufacture assures Curtis users of the highest possible efficiency, dependability and quality... at a price that is competitive. Curtis operates its own engineering department, foundry, tool room,

and pattern, machine, welding and tank shops.

In purchasing any product by "Curtis," you are assured not only of the reputation of the manufacturer, who enjoys the highest possible credit rating, but of the reputation of the product itself in the opinion of thousands of satisfied users, of the excellence of design, the high standards followed to assure precision manufacture, the dependable service rendered at a minimum operating cost, and finally, that quiet and efficient operation will be assured.

CURTIS PNEUMATIC MACHINERY DIVISION

of Curtis Manufacturing Company • St. Louis 20, Missouri, U.S.A.

Performance... Dependability... Long Life...

Curtis
AIR COMPRESSORS

FAIRMONT
FAIRMONT FOODS COMPANY
General Office • Omaha 1, Nebraska

156 North Broadway
Green Bay, Wisconsin
December 29, 1953

Mr. Walter C. Hecker
Curtis Pneumatic Machinery Division
1905 Kienlen Avenue
St. Louis 20, Missouri

Dear Mr. Hecker:

We have your letter of December 18th relative to the parts for our compressor which was ordered from the Industrial Machinery & Supply Company and will you please proceed with the manufacture and shipment of these parts.

We realize our compressor is **32 years old** but it has always given us service and it will still continue to do the job for quite a number of years. The type of equipment the Curtis Machinery Company build.

Also, we were wondering how many years we would have to keep this unit in continuous service before you people would be willing to offer us a new compressor on an exchange basis for this unit.

Yours very truly

FAIRMONT FOODS COMPANY

K. R. Tuttle
Production Manager

ms

MEMBER
ARKANSAS COTTON
TRADE ASSOCIATION

Arbyrd Compress Company, Inc.
STANDARD AND HIGHER DENSITY COMPRESSION
EQUIPPED WITH STANDARD SPRINGER SYSTEM
ARBYRD, MISSOURI

November 23, 1953

Curtis Pneumatic Machinery Division
1905 Kienlen Avenue
St. Louis 20, Missouri

Attn.: Mr. Walter C. Hecker
Gentlemen:

Having reference to your letter of October 1, relative to our compressor.

This compressor is doing such a wonderful job, with a minimum amount of maintenance, that we hesitate to consider changing. However, we would appreciate your estimate of a machine comparable to this machine. I do not know our C. F. M. requirements, but we require 120 to 150 pounds of pressure discharging through 1 1/2" lines and actuating a 17" x 2" stroke air piston. Probably from this, you will be able to determine our requirements.

Very truly yours,

ARBYRD COMPRESS COMPANY

L. E. Dohogne
Supt.

FERTILIZERS

INSECTICIDES

AGRICULTURAL MINE

THE TRIANGLE CO.
MANUFACTURERS
320 W. HARKET ST. TELEPHONE 4843
SALINAS, CALIFORNIA

November 23, 1953

Curtis Pneumatic Machinery Division
1905 Kienlen Avenue
St. Louis 20, Missouri

S:

Thank you for your letter of November 18th regarding to parts which we ordered from Curtis compressor.

In answer to your question of the fact that the aforementioned are for a **28 year old** compressor, it adds that this unit with the many repairs will be in excellent condition. This is due, no doubt, to your ability to manufacture compressors that give long and lasting service, an achievement of which you must be justly proud.

We appreciate your interest, and to receive shipment on these parts in the very near future as we are in need of same.

Very truly yours,
THE TRIANGLE CO.

Al Reposa
Equipment Manager

1854 **100th** 1954
year

28 Years

32 Years

38 Years

Curtis

AIR COMPRESSORS



ELECTRICAL SPECIFICATION CODES AND INSTRUCTIONS FOR ORDERING

The following suggestions may save you considerable time, expense and inconvenience by following them before mailing in your order or giving it to your jobber's salesman.

• **Codes**—If you wire or cable your order, you can save money in telegraph or cable tolls by the use of the code words in the listing of each unit. On electrically driven compressor outfits, the code for the outfit as well as the code for the electrical specifications (see below) should be given. Two five-letter code words may be run together as one ten-letter word and counted as one word, not two.

• **Example:**

For a CV-153 automatic, single phase, 110-volt, 60-cycle unit, specify code as.....PIBSULABKI

For a CW-405, 3 phase, 220-volt, 60-cycle, without automatic, the code will be....PISFELABYD PAPED

The following code words are to be added to the code for electrically driven units as listed in the tabulation of those units so that motor of proper specifications will be furnished on the outfit:

DC, 32 volt.....	LABJE
DC, 115 volt.....	LABAZ
DC, 208 volt.....	LAJYM
DC, 230 volt.....	LABEV
DC, 400 volt.....	LAKAF
DC, 440 volt.....	LABGA
DC, 550 volt.....	LABIX
Single phase, 60 cycle, 110 volt.....	LABKI
Single phase, 60 cycle, 115 volt.....	LAFME
Single phase, 60 cycle, 220 volt.....	LABLO
Single phase, 60 cycle, 230 volt.....	LAFNI
Single phase, 50 cycle, 110 volt.....	LAFOF
Single phase, 50 cycle, 115 volt.....	LAFFO
Single phase, 50 cycle, 125 volt.....	LAGIF
Single phase, 50 cycle, 200 volt.....	LAGMA
Single phase, 50 cycle, 220 volt.....	LACYF
Single phase, 50 cycle, 230 volt.....	LAGNE
Single phase, 50 cycle, 400 volt.....	LAGPI
3 Phase, 60 cycle, 110 volt.....	LABUC
3 Phase, 60 cycle, 208 volt.....	LAFRU
3 Phase, 60 cycle, 220 volt.....	LABYD
3 Phase, 60 cycle, 440 volt.....	LACAV
3 Phase, 60 cycle, 550 volt.....	LACEX
3 Phase, 50 cycle, 110 volt.....	LAFSY
3 Phase, 50 cycle, 200 volt.....	LAGUK
3 Phase, 50 cycle, 208 volt.....	LAFUG
3 Phase, 50 cycle, 220 volt.....	LADAX
3 Phase, 50 cycle, 230 volt.....	LAGYL
3 Phase, 50 cycle, 400 volt.....	LAJEF
3 Phase, 50 cycle, 220-380 volt, Star Delta.....	LAJAD
3 Phase, 50 cycle, 380 volt, Not Star Delta.....	LAJIG
2 Phase, 60 cycle, 110 volt.....	LACIB
2 Phase, 60 cycle, 208 volt.....	LAIFYK
2 Phase, 60 cycle, 220 volt.....	LACJA
2 Phase, 60 cycle, 440 volt.....	LACKE
2 Phase, 60 cycle, 550 volt.....	LACLI
2 Phase instead of 3 Phase.....	LAKTU
25 cycle instead of 60 cycle.....	LACMO
30 cycle instead of 60 cycle.....	LACPY
40 cycle instead of 60 cycle.....	LACNU
50 cycle instead of 60 cycle.....	LACDC

If automatic starting and stopping device for any compressor outfit is to be omitted, add code word—PAPEd.

• **Additions and Deductions**—The price of any compressor outfit includes only what is specified under the listing of that particular outfit. If any extras are desired, be sure to specify same. On motor driven units, if automatic starting and stopping device is not wanted, state that fact and make the deduction shown in the price list.

We have the following code books on file and are in position to decode telegrams or cablegrams sent in any of these codes:

ABC—5th Edition	Bentley's
ABC—6th Edition	Lieber's

Such code books for general phraseology, such as shipping instructions and other data, when used in connection with our own code words enable a very considerable savings to be made in telegraphing or cabling.

• **Current Specifications**—Be sure to give correct current specifications, as the motor must be furnished in accordance with the current that you have available in your establishment. If the current is not yet in, consult your power company, but impress upon them the necessity of giving you correct information. If the motor is not suitable for the current you have available, it will not run. The information we must have as to current is:

1. Whether Alternating or Direct.
2. The Voltage.
3. If Alternating, number of cycles, and the phase.

Three phase current is unusual for fractional horsepower motors, also for 110 volts. It is almost certain that where a motor is to be connected up to a line which is also used for electric lighting that the current will be either single phase or direct current, not two or three phase. Where a two or three phase line comes into the building and lights are apparently being used from that current supply, it will very likely be found that the lights are connected to one phase of the two or three phase line and fractional horsepower motors can usually be connected in the same way. Therefore, it is particularly important that before specifying the motor to be used on a two or three phase line that the facts be determined. Two or three phase motors are not good salable stock, and in cases when ordered by mistake, it is not attractive to us to consider having them returned after finding that they were called for in error, as we do not want to have an excess stock of them on hand at any time on account of their infrequent use. In all such cases, permission must be secured before making return to us of two or three phase motors when the order has been correctly filled.

Two and three phase motors should ALWAYS be protected by a switch equipped with thermal overload relays. Where ordinary fuses are used and one fuse blows, a three phase motor will single phase and continue to operate, but due to increased amperage the motor will shortly burn out under this condition. Thermal overload relays prevent single phasing and consequent burning out of motor.

The wires running from the current line to the compressor outfit should always be sufficiently large to carry the full load current of the motor, otherwise the motor will slow down because it is not getting sufficient current to pull the load. We recommend that connections always be made by a licensed electrician. Caution. Do not use lamp cord.

CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



Curtis
AIR COMPRESSORS

Curtis 100th ANNIVERSARY AIR COMPRESSORS...

CENTRIFUGAL UNLOADER — Positively protects motor from starting against load under all conditions. Externally mounted, readily accessible.

SUCTION STRAINER—Effectively muffles intake, easily removable for cleaning.

INTERCOOLER—Two stage compressors have extra long intercooler with radiating fins, providing maximum heat radiation.

BALANCED FAN FLYWHEEL — Provided on all compressors, located on high pressure and intercooler side of two-stage machines where air blast is most effective.

V-BELT DRIVE—Both pulleys grooved. Belt take-up provided.

"CENTRO-RING" OILING SYSTEM—Positive pressure lubrication. Only one moving part. No complicated pumps nor gears. High and low level oil filling gauge. Readily removable drain plug.

PRESSED STEEL BASE—Welded to tank. No side rods.

ASME TANK—CURTIS built, deep penetrating welds, smooth seams, fine appearance. With ASME safety valve.

DISC VALVES — Alloy steel, heat treated, "micro" finish, ground and lapped to optical flatness for quiet and efficient operation, readily accessible.

LOW PRESSURE RELIEF VALVE—All CURTIS two-stage compressors equipped with low pressure relief valve preventing excessive pressure in low pressure cylinder and intercooler. Protects motor.

CYLINDERS—Precision bored and honed, detachable from crankcase.

DISCHARGE TUBING—One piece seamless copper tubing, fewer chances for leaks, quickly radiates heat.

MOTOR—Standard NEMA frame, 1750 RPM full load speed.

CONDUIT WIRING—Wiring between motor and switch in conduit.

ASME SAFETY VALVE—Location of safety valve, gauge and pressure switch provides easy accessibility and visibility.

MOTOR MOUNTING—Universal motor mounting with V-belt adjustment.

DRAIN COCK—Located in end of tank at height to accommodate bucket. Internal tube to bottom of tank.

ATTRACTIVE FINISH—Black and gold decalcomania on red enamel tank.

PRESSED STEEL FEET—Welded to tank, no bunks nor side rods.

PRECISION BUILT—Pistons, piston rings, hardened piston pins and drop forged counter balanced crankshaft ground to micrometer limits.



CURTIS PNEUMATIC MACHINERY DIVISION of Curtis Manufacturing Co.

ST. LOUIS 20, MISSOURI, U. S. A.

CURTIS ^{100th Anniversary} STYLE "CV"

TWO STAGE • HORIZONTAL TANK
1 HP • 1½ HP • 2 HP

1854 • 1954
our 100th year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

Curtis

AIR COMPRESSORS

TWO STAGE—AIR COOLED—Greater efficiency—higher pressures—lower power costs. Two stage compressors are recommended for most installations because of their greater overall efficiency (more actual air delivered with same power consumption) and suitability to operate at high pressures.

SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

INTERCOOLER—Extra long equipped with radiating fins—provides unusually effective cooling between stages. Located in cyclone of air from fan flywheel. Provided with relief valve which prevents development of excessive pressure in low pressure cylinder and intercooler—protecting compressor and motor.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

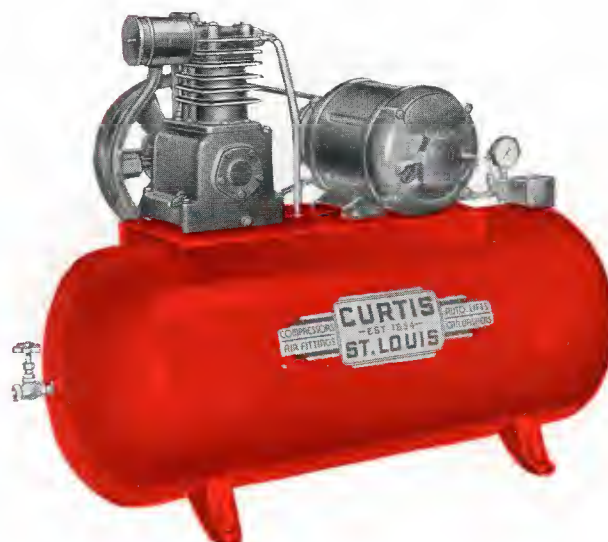
PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits; cylinders are honed.

CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 140 lbs. and cuts out at 175 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed. Completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—Multiple V-belts. V-grooved compressor flywheel and motor pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs. Automatic electric welding



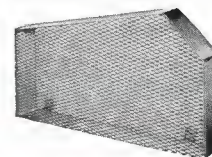
provides complete penetration as well as smooth seams and superior appearance. Holes in feet for bolting to foundation.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

FITTINGS—Intake filter and muffler—ASME safety valve—bucket high drain cock—outlet valve—300 lbs. pressure gauge.

TESTS—Every compressor after being run in, is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Compressor Speed, RPM	Cubic Feet Displ.	Motor H.P.	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
					Size Inches	Cap. In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CV-905-A	3⅜—1⅞x2¼	415	4.83	1	20x50	60	175	19	500	430	690	33	39¼	55½	21	PIFAP
CV-906	3⅜—1⅞x2¼	625	7.28	1½	20x50	60	175	19	520	450	720	33	39¼	55½	21	PIFER
CV-906-A	3⅜—1⅞x2¼	625	7.28	1½	20x66	80	175	19	620	530	800	42	39¼	71½	21	PIGZU
CV-907	3⅜—1⅞x2¼	840	9.79	2	20x50	60	175	19	550	500	740	33	39¼	55½	21	PIFIS
CV-907-A	3⅜—1⅞x2¼	840	9.79	2	20x66	80	175	19	650	560	860	42	39¼	71½	21	PIKTA

*Additional code word required for motor current, see page 3. Massachusetts specification units available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch to protect motor against single phasing.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

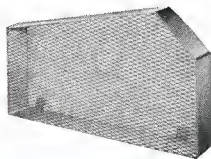


SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



CURTIS ^{100th Anniversary} STYLE "CV"

TWO STAGE • HORIZONTAL TANK 3 HP AND 5 HP

TWO STAGE — AIR COOLED—Greater efficiency—higher pressures—lower power costs. Two stage compressors are recommended for most installations because of their greater overall efficiency (more actual air delivered with same power consumption) and suitability to operate at high pressures.

INTERCOOLER—Extra long equipped with radiating fins—provides unusually effective cooling between stages. Lacoted in cyclone of air from fan flywheel. Provided with relief valve which prevents development of excessive pressure in low pressure cylinder and intercooler—protecting compressor and motor.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical fineness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits; cylinders are honed.

CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 140 lbs. and cuts out at 175 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed. Completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—Multiple V-belts. V-grooved compressor flywheel and motor pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs. Automatic electric welding provides complete penetration as well as smooth seams and superior appearance. Holes in feet for bolting to foundation.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

FITTINGS—Intake filter and muffler—ASME safety valve—bucket high drain cock—outlet valve—300 lbs. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Compressor Speed, RPM	Cubic Feet Displ.	Motor HP	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
					Size Inches	Cap. In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CV-968-A	4½—2½x3½	460	14.80	3	20x66	80	175	20	850	710	1010	46	44½	71½	24½	PIFRA
CV-969-A	4½—2½x3½	755	24.31	5	20x66	80	175	20	920	755	1050	46	44½	71½	24½	PIFTI
CV-969-B	4½—2½x3½	755	24.31	5	24x70	120	175	20	1110	910	1320	80	51	75½	26½	SADRO

*Additional code word required for motor current, see page 3. Massachusetts specification units available at extra charge.

Automatic motor starter required for 5 HP single phase outfits, available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch (or magnetic starter when required) to protect motor against single phasing.

CURTIS ^{100th} Anniversary **STYLE "CV"**

TWO STAGE • HORIZONTAL TANK
7½ HP • 10 HP • 15 HP

1854-1954
our 100th year
 OF SUCCESSFUL MANUFACTURING EXPERIENCE

Curtis

AIR COMPRESSORS

TWO STAGE—Greater efficiency, high pressure, low power cost.

AIR COOLED—No expensive water bills and plumbing costs.

SELF-OILING—Only one moving part, the oil pick-up ring revalving on the crankshaft.

TIMKEN MAIN BEARINGS—Tapered roller, reduce friction, insure long life, easy external adjustment.

CONNECTING ROD BEARINGS—Renewable, high grade babbitt inserts.

INTERCOOLER—Extra long (double type) equipped with radiating fins, relief valve protects against excessive pressure.

VALVES—Disc type, heat treated, alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed, dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits, cylinders are honed.

DRIVE—Multiple V-belts, belt take-up provided.

ASME TANK—CURTIS made, 200 lbs. working pressure.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

FITTINGS—Intake filter and muffler, ASME safety valve, bucket high drain cock, outlet valve, 300 lbs. pressure gauge.

TESTS—All compressors given a run-in and efficiency test.

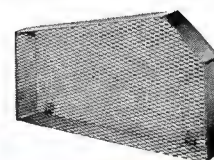
CONTROL—PS Models are AUTOMATIC START AND STOP, pressure switch cuts out 175 lbs., cuts in 140 lbs. Vacuum type unloader insures positive automatic unloaded start.

CR Models are CONSTANT RUNNING, compressor idles at 160 lbs., resumes compression at 145 lbs. Equipped with air pressure type unloader for continuous operation.



DC Models are DUAL CONTROL consisting of both automatic start and stop device and constant running unloader together with a selector switch permitting either intermittent or continuous operation as desired—maximum pressure 160 lbs.

BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Comp. Speed RPM	Cubic Feet Displ.	Motor HP	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic Lbs.	Export Data			Approx. Unit Dimensions			Code*
					Size Inches	Cap. In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CV-9710-PS	6¼—3½x3¾	510	34.0	7½	20x66	80	175	20	1290	1120	1545	54	47½	71½	26½	SADMA
CV-9710-CR	6¼—3½x3¾	510	34.0	7½	20x66	80	160	20	1290	1120	1545	54	51½	71½	26½	SADIN
CV-9710-DC	6¼—3½x3¾	510	34.0	7½	20x66	80	160	20	1290	1120	1545	54	51½	71½	26½	SADGO
CV-9710-A-PS	6¼—3½x3¾	510	34.0	7½	24x70	120	175	20	1490	1235	1910	78	53¾	75½	28½	SADPI
CV-9710-A-CR	6¼—3½x3¾	510	34.0	7½	24x70	120	160	20	1490	1235	1910	78	57¾	75½	28½	SADKA
CV-9710-A-DC	6¼—3½x3¾	510	34.0	7½	24x70	120	160	20	1490	1235	1910	78	57¾	75½	28½	SADAJ
CV-9711-PS	6¼—3½x3¾	700	46.6	10	20x66	80	175	20	1385	1180	1660	58	47½	71½	26½	SADNE
CV-9711-CR	6¼—3½x3¾	700	46.6	10	20x66	80	160	20	1385	1180	1660	58	51½	71½	26½	SADYT
CV-9711-DC	6¼—3½x3¾	700	46.6	10	20x66	80	160	20	1385	1180	1660	58	51½	71½	26½	SADUL
CV-9711-A-PS	6¼—3½x3¾	700	46.6	10	24x70	120	175	20	1600	1360	2010	83	53¾	75½	28½	SADOB
CV-9711-A-CR	6¼—3½x3¾	700	46.6	10	24x70	120	160	20	1600	1360	2010	83	57¾	75½	28½	SADEV
CV-9711-A-DC	6¼—3½x3¾	700	46.6	10	24x70	120	160	20	1600	1360	2010	83	57¾	75½	28½	SADJE
CV-9812-PS	7½—4¼x5	610	78.0	15	24x70	120	175	20	2265	2075	2600	100	61	76½	33½	PALEX
CV-9812-CR	7½—4¼x5	610	78.0	15	24x70	120	160	20	2265	2075	2600	100	65	76½	33½	PAMUF
CV-9812-DC	7½—4¼x5	610	78.0	15	24x70	120	160	20	2265	2075	2600	100	65	76½	33½	PALZA

*Additional code word required for motor current, see page 3. Massachusetts specification units available at extra charge.

PS Models—Automatic start and stop control. CR Models—Constant running (air pressure unloader) control. DC Models—Dual control.

Automatic motor starter required for all PS and DC models, available at extra charge.

All CR Models should be protected by a thermal switch, available at extra charge.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

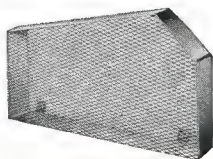
1854 • 1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE



SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling. Attached in place.



CURTIS ^{100th Anniversary} STYLE "CQ"

TWO STAGE • VERTICAL TANK 1 HP THRU 5 HP

TWO STAGE — AIR COOLED—Greater efficiency—higher pressures—lower power costs. Two stage compressors are recommended for most installations because of their greater overall efficiency and suitability to operate at high pressures.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

INTERCOOLER—Extra long equipped with radiating fins—provides unusually effective cooling between stages. Located in cyclone of air from fan flywheel. Provided with relief valve which prevents development of excessive pressure in low pressure cylinder and intercooler—protecting compressor and motor.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits; cylinders are honed.

CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 140 lbs. and cuts out at 175 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed. Completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—Multiple V-belts. V-grooved compressor flywheel and motor pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs. Automatic electric welding provides complete penetration as well as smooth seams and superior appearance. Holes in feet for bolting to foundation.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

FITTINGS—Intake filter and muffler—ASME safety valve—bucket high drain cock—outlet valve—300 lbs. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Compressor Speed, RPM	Cubic Feet Displ.	Motor HP	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
					Size Inches	Cap. In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Confs. Feet	Height Inches	Length Inches	Width Inches	
CQ-905-A	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	415	4.83	1	20x50	60	175	19	580	465	700	34	70	33	22 $\frac{3}{4}$	SACEZ
CQ-906	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	625	7.28	1 $\frac{1}{2}$	20x50	60	175	19	610	475	740	34	70	33	22 $\frac{3}{4}$	SACIV
CQ-906-A	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	625	7.28	1 $\frac{1}{2}$	24x48	80	175	19	710	550	850	42	67 $\frac{1}{2}$	35	25	SAKIF
CQ-907	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	840	9.79	2	20x50	60	175	19	690	525	780	34	70	33	22 $\frac{3}{4}$	SACLA
CQ-907-A	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	840	9.79	2	24x48	80	175	19	725	610	890	42	67 $\frac{1}{2}$	35	25	SAKOG
CQ-968-A	4 $\frac{1}{2}$ —2 $\frac{1}{2}$ x3 $\frac{1}{2}$	460	14.80	3	24x48	80	175	20	895	690	1040	48	72	35	26 $\frac{1}{2}$	SAKRA
CQ-969-A	4 $\frac{1}{2}$ —2 $\frac{1}{2}$ x3 $\frac{1}{2}$	755	24.31	5	24x48	80	175	20	1010	780	1125	48	72	35	26 $\frac{1}{2}$	SAKVO

*Additional code word required for motor current, see page 3. Massachusetts specification units available at extra charge.

Automatic motor starter required for 5 HP single phase outfits, available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch (or magnetic motor starter when required) to protect motor against single phasing.

CURTIS PNEUMATIC MACHINERY DIVISION
OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS ^{100th Anniversary} STYLE "CW"

TWO STAGE • BASE MOUNTED 1 HP THRU 10 HP

1854 • 1954
our 100TH year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

The style CW units listed on this page do not include the tank. They can be readily piped to a separate air tank; for air tanks see page 22.

These base mounted units enable you to increase your present air supply with a minimum investment. Simply by piping one of these units to your present compressor equipment you can increase your air supply. With two or more compressor units pumping into the same tank you will never be completely without air. Units can be set to cut in or out according to your air requirements.

TWO STAGE—AIR COOLED—Eliminates costly water bills and expensive plumbing connections, also damage due to freeze-ups.

BASE—Heavy steel base with holes for attaching to floor or foundation.

INTAKE FILTER—Optional at extra charge.

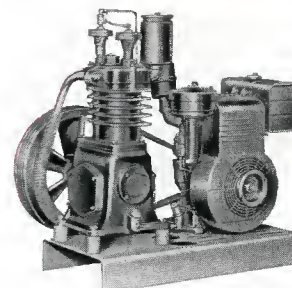
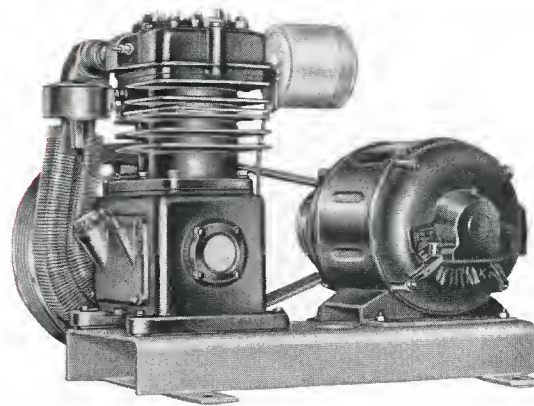
CONTROL

PS Models are **AUTOMATIC START AND STOP** including pressure switch 175 lbs. cut out and 140 lbs. cut in, and centrifugal unloader on models 1 HP through 5 HP, or vacuum unloader on models 7½ HP and 10 HP, insuring positive unloaded start under all conditions.

CR models are **CONSTANT RUNNING**, compressor idles at 160 lbs., resumes compression at 140 lbs., the unloader is of the air pressure type for continuous operation.

DC models are **DUAL CONTROL** consisting of both automatic starting and stopping device and constant running unloader together with a selector switch permitting either intermittent or continuous operation as desired. Maximum pressure 160 lbs.

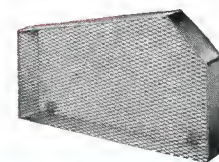
TESTS—Every compressor after being run in must pass on orifice test for efficiency.



ENGINE DRIVEN MODELS
ALSO AVAILABLE.



BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Compressor Speed RPM	Cubic Feet Displ.	Motor HP	Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
								Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CW-905-PS	3¾—1½x2¼	415	4.83	1	175	19	295	240	340	15	19½	33	15¾	PILZI
CW-906-PS	3¾—1½x2¼	625	7.28	1½	175	19	315	270	360	15	19½	33	15¾	PIMAZ
CW-907-PS	3¾—1½x2¼	840	9.79	2	175	19	330	300	410	15	20	33	17	PITEF
CW-968-PS	4½—2½x3½	460	14.80	3	175	20	480	375	520	21	26¼	35	23	PITFA
CW-969-PS	4½—2½x3½	755	24.31	5	175	20	530	410	590	21	26¼	35	23	PITGE
CW-979-PS	6¼—3¾x3¾	415	27.60	5	175	20	845	700	910	32	29¼	40	25	SAFOC
CW-9710-PS	6¼—3¾x3¾	510	34.00	7½	175	20	900	750	950	32	29¼	40	25	SAFPE
CW-9710-CR	6¼—3¾x3¾	510	34.00	7½	160	20	900	750	950	32	33¼	40	25	SAFGA
CW-9710-DC	6¼—3¾x3¾	510	34.00	7½	160	20	900	750	950	32	33¼	40	25	SAFBO
CW-9711-PS	6¼—3¾x3¾	700	46.60	10	175	20	950	810	1010	32	29¼	40	25½	SAFRI
CW-9711-CR	6¼—3¾x3¾	700	46.60	10	160	20	950	810	1010	32	33¼	40	25½	SAFTU
CW-9711-DC	6¼—3¾x3¾	700	46.60	10	160	20	950	810	1010	32	33¼	40	25½	SAFLY

*Additional code word required for motor current, see page 3.

PS Models—Automatic start and stop control. CR Models—Constant running (air pressure unloader) control. DC Models—Dual control.

Automatic motor starter required for 5 HP single phase PS models, and 7½ and 10 HP single and three phase PS and DC models, available at extra charge. Two and three phase motors should ALWAYS be protected by a thermal switch (or magnetic starter when required) to protect motor against single phasing.

The above two stage units are suitable for operation up to 200 lbs. For higher pressures, information on request.

Larger base mounted units, 15 to 50 HP inclusive, also available—information on request.



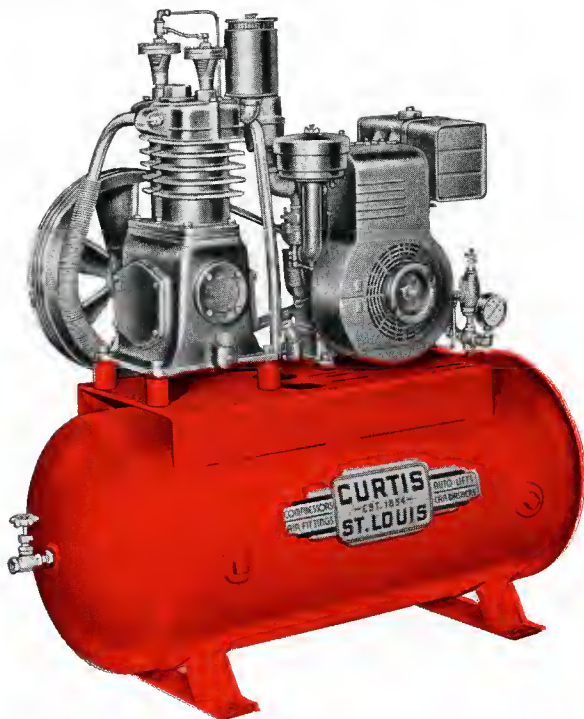
CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

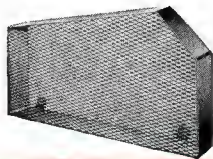
1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE



SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure controlled lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

BELT GUARD—Optional at extra charge. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling. Attached in place.



CURTIS ^{100th} Anniversary STYLE "CVG"

TWO STAGE • HORIZONTAL TANK GASOLINE ENGINE DRIVEN

TWO STAGE—AIR COOLED—Greater efficiency—higher pressures—lower power costs. Two stage compressors are recommended for most installations because of their greater overall efficiency (more actual air delivered with same power consumption) and suitability to operate at high pressures.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

INTERCOOLER—Extra long equipped with radiating fins—provides unusually effective cooling between stages. Located in cyclone of air from fan flywheel. Provided with relief valve which prevents development of excessive pressure in low pressure cylinder and intercooler—protecting compressor and motor.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits—cylinders are honed.

CONTROL—Units are manual starting. Suitable for maximum pressure of 175 lbs.

UNLOADER—Standard units are equipped with hand unloader permitting engine to be started with the compressor unloaded. For **CONTINUOUS SERVICE** the constant running (air pressure) unloader which alternately allows compressor to pump and idle is recommended, furnished at extra charge.

For **INTERMITTENT SERVICE** an automatic stopping device with or without low pressure alarm which stops the engine at maximum pressure is available at extra charge.

DRIVE—Multiple V-belts—V-grooved compressor flywheel and engine pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs.

ENGINE—Standard make—air cooled—high tension flywheel magneto—rope starter—oil bath air cleaner—fuel tank.

FITTINGS—Intake filter and muffler (for dusty conditions oil bath type intake filter can be furnished at extra charge)—ASME safety valve—bucket high drain cock—outlet valve—300 lb. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	Compressor Speed, RPM	Cubic Feet Displ.	Motor HP	ASME Tank			Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
					Size Inches	Cap. In Gals.	Std. Press. Lbs.			Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CVG-906	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	550	6.40	2	16x41	30	175	19	445	370	550	30	35 $\frac{1}{2}$	46 $\frac{1}{2}$	21	SAMAF
CVG-906-A	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	550	6.40	2	20x50	60	175	19	500	425	650	35	39 $\frac{1}{2}$	55 $\frac{1}{2}$	21	SAMBU
CVG-907	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	825	9.61	2 $\frac{3}{4}$	16x41	30	175	19	455	380	575	30	37 $\frac{1}{2}$	46 $\frac{1}{2}$	21	SAMCY
CVG-907-A	3 $\frac{3}{8}$ —1 $\frac{1}{8}$ x2 $\frac{1}{4}$	825	9.61	2 $\frac{3}{4}$	20x50	60	175	19	520	490	735	36	41 $\frac{1}{2}$	55 $\frac{1}{2}$	21	SAMEG
CVG-968	4 $\frac{1}{2}$ —2 $\frac{5}{8}$ x3 $\frac{1}{2}$	450	14.50	3	20x50	60	175	20	690	580	820	45	44	55 $\frac{1}{2}$	22 $\frac{1}{2}$	SAMTA
CVG-968-A	4 $\frac{1}{2}$ —2 $\frac{5}{8}$ x3 $\frac{1}{2}$	450	14.50	3	20x66	80	175	20	775	700	990	46	44	71 $\frac{1}{2}$	22 $\frac{1}{2}$	SAMUM
CVG-969	4 $\frac{1}{2}$ —2 $\frac{5}{8}$ x3 $\frac{1}{2}$	650	20.90	6	20x50	60	175	20	740	650	900	45	44	55 $\frac{1}{2}$	22 $\frac{1}{2}$	SAMVE
CVG-969-A	4 $\frac{1}{2}$ —2 $\frac{5}{8}$ x3 $\frac{1}{2}$	650	20.90	6	20x66	80	175	20	845	760	1100	46	44	71 $\frac{1}{2}$	22 $\frac{1}{2}$	SAMWI

*Use following code words for any extras required:—Constant running unloader.....PANYK
Oil bath air cleaner on compressor.....JAPCO

Automatic stopping device.....JAPAK
Low pressure alarm.....JAPBI

Massachusetts specification units available at extra charge.

Also available in base mounted units without tank—prices on application.

CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS ^{100th Anniversary} STYLE "CV"

SINGLE STAGE • HORIZONTAL TANK 1/2 HP THRU 2 HP

1854-1954
our **100**TH year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

Curtis

AIR COMPRESSORS

SINGLE STAGE—AIR COOLED—Single cylinder and twin cylinder—Quiet and efficient. Recommended for pressures not exceeding 150 lbs.

SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits; cylinders are honed.

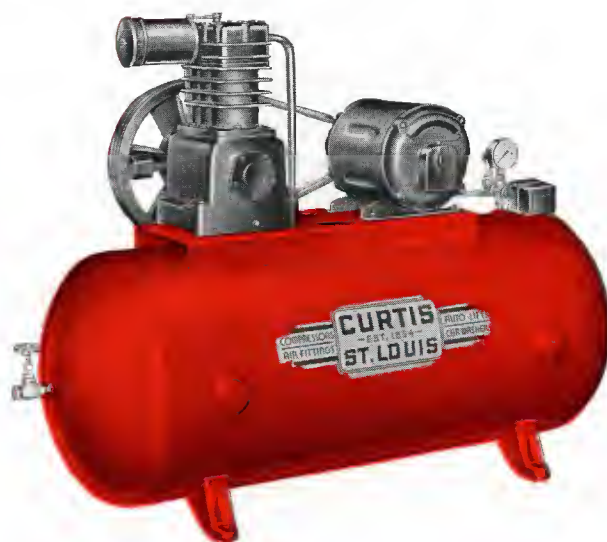
CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 120 lbs. and cuts out at 150 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed. Completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—Multiple V-belts. V-grooved compressor flywheel and motor pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs. Automatic electric welding provides complete penetration as well as smooth seams and superior appearance. Holes in feet for bolting to foundation.

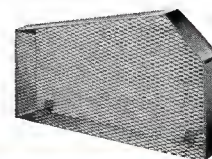
MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.



FITTINGS—Intake filter and muffler—ASME safety valve—bucket high drain cock—outlet valve—300 lbs. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

BELT GUARD—Optional at extra cost. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	No. of Cyl.	Compressor Speed, RPM	Cubic Feet Displ.	Motor HP	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
						Size Inches	Cap In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Confs. Feet	Height Inches	Length Inches	Width Inches	
CV-153	2 5/8 x 2 1/4	1	430	2.96	1/2	16x41	30	150	19	290	250	390	19	34 1/2	46 1/2	17	PIBSU
CV-404	3 x 2 1/4	1	475	4.37	3/4	16x41	30	150	19	300	260	400	19	34 1/2	46 1/2	17	PIBTY
CV-405-A	3 x 2 1/4	1	625	5.75	1	20x50	60	150	19	435	360	600	31	38 1/2	55 1/2	21	PIBIN
CV-506	3 x 2 1/4	2	450	8.28	1 1/2	20x50	60	150	19	520	450	660	32	40	55 1/2	21	PIBYS
CV-507	3 x 2 1/4	2	650	11.97	2	20x50	60	150	19	545	490	730	32	40	55 1/2	21	PICAM

*Additional code word required for motor current, see page 3. Massachusetts specification units, available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch to protect motor against single phasing.

For maximum pressures of 100 lbs. or less, we recommend style CVP units—see page 14.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

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our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE



SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

BELT GUARD—Optional at extra cost. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



CURTIS ^{100th} Anniversary STYLE "CQ"

SINGLE STAGE • VERTICAL TANK ½ HP THRU 2 HP

SINGLE STAGE—AIR COOLED—Single cylinder and twin cylinder—Quiet and efficient. Recommended for pressures not exceeding 150 lbs.

CONNECTING ROD BEARINGS—Renewable—high grade babbit inserts.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits; cylinders are honed.

CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 120 lbs. and cuts out at 150 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed. Completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—Multiple V-belts. V-grooved compressor flywheel and motor pulley—belt take-up provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs. Automatic electric welding provides complete penetration as well as smooth seams and superior appearance. Holes in feet for bolting to foundation.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

FITTINGS—Intake filter and muffler—ASME safety valve—bucket high drain cock—outlet valve—300 lbs. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	No. of Cyl.	Compressor Speed, RPM	Cubic Feet Displ.	Motor HP	ASME Tank		Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
						Size Inches	Cap. In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CQ-153	2½ x 2¼	1	430	2.96	½	16x41	30	150	19	320	260	435	20	60	32	18½	SABIZ
CQ-404	3 x 2¼	1	475	4.37	¾	16x41	30	150	19	330	270	450	22	60	32½	18½	SABKA
CQ-405-A	3 x 2¼	1	625	5.75	1	20x50	60	150	19	480	370	610	33	69¼	32½	22¾	SABRY
CQ-506	3 x 2¼	2	450	8.28	1½	20x50	60	150	19	600	520	750	35	70¾	33	22¾	SABMI
CQ-507	3 x 2¼	2	650	11.97	2	20x50	60	150	19	620	540	780	35	70¾	33	22¾	SABNO

*Additional code word required for motor current, see page 3. Massachusetts specification units, available at extra charge. Two and three phase motors should ALWAYS be protected by a thermal switch to protect motor against single phasing. For maximum pressures of 100 lbs. or less, we recommend style CVP units—see page 14.

CURTIS PNEUMATIC MACHINERY DIVISION
OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS ^{100th Anniversary} STYLE "CVP"

SINGLE STAGE • LOW PRESSURE UNITS ¾ HP THRU 5 HP

Curtis
AIR COMPRESSORS

1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

RECOMMENDED USE—These compressors are recommended for paint spraying and other industrial purposes where the maximum pressure required is not over 100 lbs.

PRESSURE AND DISPLACEMENT—Each unit is listed for two pressures, 80 lbs. and 100 lbs. respectively, using the same motor in each case. For maximum pressure of 80 lbs. the compressor runs faster and displaces more air (see specifications below); pumping against lower pressures permits greater displacement.

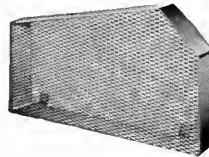
SINGLE STAGE—AIR COOLED—The units shown on this page are the same single stage compressors incorporating the many distinctive features of construction and design as shown throughout the catalog.

CONTROL

Model PS units are recommended for intermittent service. They are **AUTOMATIC STARTING AND STOPPING** including automatic pressure switch and centrifugal unloader for relieving the starting load.

Model CR units are recommended when use of air will be more or less continuous. They are equipped with a **CONSTANT RUNNING** (air pressure type) unloader which allows the compressor to run continuously but alternately pumps and idles.

BELT GUARD—Optional at extra cost. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	No. of Cyl.	Cubic Feet Displacement		Motor HP	ASME Tank		Comp. Design, See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
			At 80 Lbs. Pressure	At 100 Lbs. Pressure		Size Inches	Cap. In Gals.			Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CVP-404-PS	3 x 2¼	1	5.75	5.29	¾	16x41	30	19	295	250	395	19	34½	46½	17	PESMY
CVP-404-CR	3 x 2¼	1	5.75	5.29	¾	16x41	30	19	295	250	395	19	38½	46½	17	PESKO
CVP-405-PS	3 x 2¼	1	7.36	6.90	1	16x41	30	19	395	320	500	20	34½	46½	17	PENAX
CVP-405-CR	3 x 2¼	1	7.36	6.90	1	16x41	30	19	395	320	500	20	38½	46½	17	PESIG
CVP-506-PS	3 x 2¼	2	10.58	9.66	1½	16x41	30	19	410	350	550	20	36	46½	18	PECEP
CVP-506-CR	3 x 2¼	2	10.58	9.66	1½	16x41	30	19	410	350	550	20	40	46½	18	PEVAL
CVP-506-A-PS	3 x 2¼	2	10.58	9.66	1½	20x50	60	19	520	450	660	30	40	55½	21	PEZAK
CVP-506-A-CR	3 x 2¼	2	10.58	9.66	1½	20x50	60	19	520	450	660	30	44	55½	21	PEVIN
CVP-507-PS	3 x 2¼	2	13.81	12.89	2	20x50	60	19	545	490	730	30	40	55½	21	PENBA
CVP-507-CR	3 x 2¼	2	13.81	12.89	2	20x50	60	19	545	490	730	30	44	55½	21	PEVOP
CVP-808-PS	3¾ x 3½	2	20.80	18.10	3	20x50	60	20	720	620	890	36	50	55½	24½	PECOS
CVP-808-CR	3¾ x 3½	2	20.80	18.10	3	20x50	60	20	720	620	890	36	51½	55½	24½	PEVRU
CVP-809-PS	3¾ x 3½	2	26.20	24.40	5	20x50	60	20	760	650	920	36	50	55½	24½	PENGU
CVP-809-CR	3¾ x 3½	2	26.20	24.40	5	20x50	60	20	760	650	920	36	51½	55½	24½	PEWAG

*Additional code word required for motor, see page 3. Massachusetts specification units available at extra charge.

PS Models—Automatic start and stop control.

CR Models—Constant running (air pressure unloader) control.

Automatic motor starter required for 5 HP single phase automatic start and stop units, available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch (or magnetic starter when required) to protect motor against single phasing.



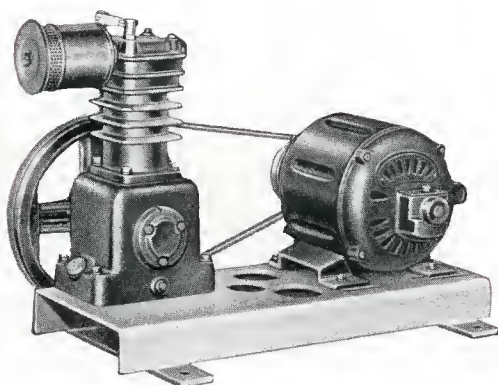
CURTIS PNEUMATIC MACHINERY DIVISION

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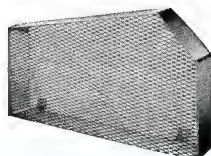
AIR COMPRESSORS

1854 • 1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE



SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

BELT GUARD—Optional of extra cost. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



CURTIS ^{100th Anniversary} STYLE "CW"

SINGLE STAGE • BASE MOUNTED 1/2 HP THRU 5 HP

SINGLE STAGE—AIR COOLED—Single cylinder and twin cylinder—Quiet and efficient. Recommended for pressures not exceeding 150 lbs.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

CONNECTING ROD BEARINGS—Renewable—high grade babbitt inserts.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and honed piston pins ground to micrometer limits, cylinders are honed.

CONTROL—Automatic start and stop. Pressure switch (standard setting) cuts in at 120 lbs. and cuts out at 150 lbs. Other pressure settings available.

UNLOADER—CURTIS centrifugal unloader externally mounted, governed by compressor speed—completely unloads compressor whenever it stops, even in cases of power failure—assures positive unloaded start under all conditions.

DRIVE—V belt drive—V grooved compressor flywheel and motor pulley—belt takeup provided.

MOTOR—Standard N.E.M.A. frame—1750 RPM full load speed.

INTAKE FILTER AND MUFFLER—Optional of extra cost.

TESTS—After being run in, every compressor is given an orifice test for efficiency—All assembled units are again tested under their own power to assure perfect performance.

SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	No. of Cyl.	Compressor Speed RPM	Cubic Feet Displ.	Motor HP	Std. Cut-Out Press. Lbs.	Comp. Design, See Page	Approx. Shipping Weight Domestic Lbs.	Export Data			Approx. Unit Dimensions			Code*
									Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CW-153	2 1/8 x 2 1/4	1	430	2.96	1/2	150	19	150	140	200	6	18 3/4	32	14 1/2	PIROF
CW-404	3 x 2 1/4	1	475	4.37	3/4	150	19	160	150	235	8	18 3/4	32 1/2	14 1/2	PIRUG
CW-405	3 x 2 1/4	1	625	5.75	1	150	19	200	180	265	8	18 3/4	32 1/2	14 1/2	PISFE
CW-506	3 x 2 1/4	2	450	8.28	1 1/2	150	19	255	210	315	12	20	33 1/2	17	PISGI
CW-507	3 x 2 1/4	2	650	11.97	2	150	19	300	240	340	12	20	33 1/2	17	PISIF
CW-808	3 3/8 x 3 1/2	2	480	17.38	3	150	20	430	380	500	19	28	35	23	PISKU
CW-809	3 3/8 x 3 1/2	2	710	25.66	5	150	20	460	410	530	19	28	35	23	PISLY

*Additional code word required for motor current, see page 3.

Automatic motor starter required for 5 HP single phase outfit, available at extra charge.

Two and three phase motors should ALWAYS be protected by a thermal switch (or magnetic starter when required) to protect motor against single phasing. If automatic starting and stopping device is to be omitted, add code word PAPED.

CURTIS PNEUMATIC MACHINERY DIVISION

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CURTIS ^{100th Anniversary} STYLE "CVG"

SINGLE STAGE • HORIZONTAL TANK GASOLINE ENGINE DRIVEN

1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

Curtis

AIR COMPRESSORS

SINGLE STAGE—AIR COOLED—Single cylinder and twin cylinder—Quiet and efficient. Recommended for pressures not exceeding 150 lbs.

SELF-OILING—Only one moving part—the oil pick-up ring revolving on the crankshaft. No complicated pumps nor gears. A simple, positive pressure controlled lubrication system providing proper lubrication of the entire compressor. High and low level oil filling gauge and oil drain provided.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction, insure long life and provide easy external adjustment without dismantling compressor.

CONNECTING ROD BEARINGS—Renewable—high grade babbit inserts.

VALVES—Disc type, heat treated, of alloy steel, ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits—cylinders are honed.

CONTROL—Units are manual starting. Suitable for maximum working pressure of 150 lbs.

UNLOADER

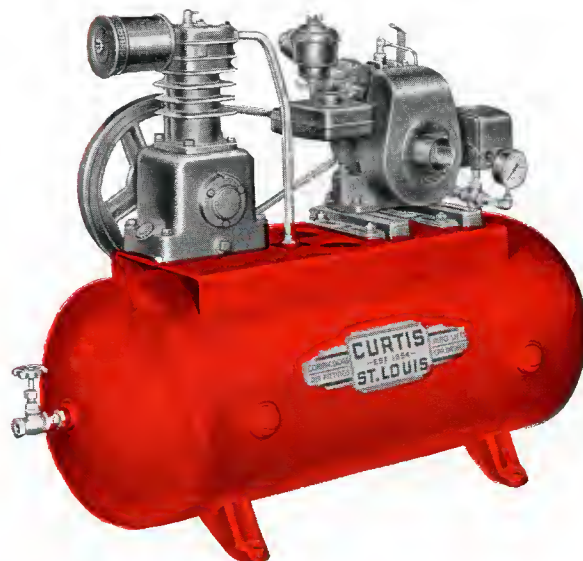
Standard units are equipped with hand unloader permitting engine to be started with the compressor unloaded.

For continuous service the constant running (air pressure) unloader which alternately allows compressor to pump and idle is recommended, furnished at extra charge.

For intermittent service an automatic stopping device with or without low pressure alarm which stops the engine at maximum pressure is available at extra charge.

DRIVE—Multiple V-belts—V-grooved compressor flywheel and engine pulley—belt takeup provided.

TANK—CURTIS built to rigid requirements of ASME specifications for 200 lbs. working pressure. Carries ASME label and is individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs.



ENGINE—Standard make—air cooled—high tension flywheel magnets—repe starter—oil bath air cleaner—fuel tank.

FITTINGS—Intake filter and muffler (for dusty conditions oil bath type intake filter can be furnished at extra charge)—ASME safety valve—bucket high drain cock—outlet valve—300 lb. pressure gauge.

TESTS—After being run in, every compressor is given an orifice test for efficiency—all assembled units are again tested under their own power to assure perfect performance.

BELT GUARD—Optional at extra cost. Has strong rigid steel panel with flattened mesh expanded metal front. Does not interfere with cooling of compressor. Attached in place.



SPECIFICATIONS

Model No.	Bore and Stroke Compressor Inches	No. of Cyl.	Compressor Speed, RPM	Cubic Feet Displ.	Engine H.P.	ASME Tank		Std. Press. Lbs.	Comp. Design See Page	Approx. Shipping Weight Domestic, Lbs.	Export Data			Approx. Unit Dimensions			Code*
						Size Inches	Cap In Gals.				Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Height Inches	Length Inches	Width Inches	
CVG-153	2 $\frac{3}{8}$ x 2 $\frac{1}{4}$	1	400	2.80	$\frac{5}{8}$	16x41	30	150	19	285	220	360	19	35	46 $\frac{1}{2}$	17	SAKZY
CVG-405	3 x 2 $\frac{1}{4}$	1	500	4.60	1 $\frac{1}{2}$	16x41	30	150	19	300	240	380	19	35	46 $\frac{1}{2}$	17	SALAD
CVG-406	3 x 2 $\frac{1}{4}$	1	700	6.40	2	20x50	60	150	19	460	390	560	32	39	55 $\frac{1}{2}$	21	SALBY
CVG-507	3 x 2 $\frac{1}{4}$	2	675	12.43	2 $\frac{3}{4}$	20x50	60	150	19	520	425	680	34	41 $\frac{1}{2}$	55 $\frac{1}{2}$	21	SALEF
CVG-808	3 $\frac{3}{8}$ x 3 $\frac{1}{2}$	2	400	14.50	3	20x50	60	150	20	700	600	870	43	46	55 $\frac{1}{2}$	24 $\frac{1}{2}$	SALIG
CVG-808-A	3 $\frac{3}{8}$ x 3 $\frac{1}{2}$	2	400	14.50	3	20x66	80	150	20	780	670	960	46	46	71 $\frac{1}{2}$	24 $\frac{1}{2}$	SALOK
CVG-809	3 $\frac{3}{8}$ x 3 $\frac{1}{2}$	2	650	23.50	6	20x50	60	150	20	740	640	940	43	46	55 $\frac{1}{2}$	24 $\frac{1}{2}$	SALSA
CVG-809-A	3 $\frac{3}{8}$ x 3 $\frac{1}{2}$	2	650	23.50	6	20x66	80	150	20	810	710	1030	46	46	71 $\frac{1}{2}$	24 $\frac{1}{2}$	SALTE

*Use following code words for any extras required:—Constant running unloader.....PANYK

Oil bath air cleaner on compressor.....JAPCO

Massachusetts specification units available at extra charge.

Automatic stopping device.....JAPAK

Low pressure alarm.....JAPBI

Also available in base mounted units without tank—prices on application.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

CURTIS ^{100th Anniversary} COMPRESSORS

SIMPLE MACHINES • SINGLE STAGE

The simple compressors listed on this page are single stage, air cooled, single cylinder and twin cylinder. These compressors are the result of our 100 years experience as a successful manufacturing concern and incorporate the many distinctive features of construction and design described below.

SELF-OILING—A simple positive pressure lubrication system—only one moving part—the oil pick-up ring revolving on the crankshaft—no complicated pumps nor gears.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction—insure long life—easy external adjustment.

CONNECTING ROD BEARINGS—Renewable—high grade babbit inserts.

CRANKSHAFT—Drop forged—Ground finish—Counter balanced for smooth operation.

VALVES—Disc type—heat treated—alloy steel—ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof—sealed—no compression in crankcase—vacuum breather valve.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits—detachable cylinders are honed—assures long life and minimum maintenance.

FAN FLYWHEEL—Balanced for smooth operation—cools the cylinders for greater efficiency—grooved for V belt drive or with crown face for flat belt drive.

TESTS—Every compressor after being run in must pass an orifice test for efficiency.

HAND UNLOADER—Standard equipment on simple compressors—permits manual unloaded start—see page 21.

CENTRIFUGAL UNLOADER—For automatic starting service—assures positive automatic unloaded start under all conditions, see page 21—optional at extra charge.

CONSTANT RUNNING UNLOADER—Recommended when air is required continuously between predetermined limits. Allows compressor to alternately pump and idle, see page 21—optional at extra charge.



SINGLE STAGE
SINGLE CYLINDER
MODEL C-15
◀ ◀ ◀



SINGLE STAGE
TWIN CYLINDER
MODEL C-50
▶ ▶ ▶

For details of construction see cross sections on pages 19 and 20.

SPECIFICATIONS

Model No.	Bore and Stroke Inches	No. of Cyl.	Usual Motor Size (HP) For 150 Lbs. Press.	Minimum Speed		Maximum Speed Intermittent Duty		Comp. Design See Page	Approx. Shipping Weight Domestic Lbs.	Export Data			Approx. Unit Dim. With Hand Unloader Incl. Flywheel			V-Grooved Flywheel		Code
				RPM	Cu. Ft. Displ.	RPM	Cu. Ft. Displ.			Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Length Parallel To Shaft	Width	Height	O.D.	No. & Size of Belts	
C-15	2 $\frac{7}{8}$ x 2 $\frac{1}{4}$	1	$\frac{1}{2}$	400	2.82	800	5.64	19	70	50	85	3	9"	11 $\frac{1}{2}$ "	18 $\frac{1}{16}$ "	11 $\frac{1}{2}$ "	1-A	PASAF
C-40	3 x 2 $\frac{1}{4}$	1	$\frac{3}{4}$ —1	400	3.68	800	7.36	19	75	55	100	3	9"	11 $\frac{1}{2}$ "	18 $\frac{1}{16}$ "	11 $\frac{1}{2}$ "	1-A	PATIL
C-50	3 x 2 $\frac{1}{4}$	2	1 $\frac{1}{2}$ —2	400	7.36	800	14.73	19	140	100	150	4	13 $\frac{7}{8}$ "	13 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "	13 $\frac{1}{2}$ "	2-B	PAVEN
C-80	3 $\frac{3}{8}$ x 3 $\frac{1}{2}$	2	3—5	400	14.50	700	29.00	20	210	170	250	7	16 $\frac{1}{16}$ "	16 $\frac{1}{2}$ "	24 $\frac{3}{8}$ "	16 $\frac{1}{2}$ "	3-B	PAWKA

Hand unloader is standard equipment.

Constant running unloader available at extra charge, for any size add code word PANYK.

Centrifugal unloader only available at extra charge, for any size add code word PAPDA.

Automatic starting and stopping device including centrifugal unloader and pressure switch, for any size add code word PANUG.

If automatic starting and stopping device is ordered advise current specifications. See page 3 for electrical code.

CURTIS standard grooved flywheel is standard equipment. Crown faced flywheel available at no extra charge, for any size add code word PALTY.

Compressors equipped with tight pulley only. For tight and loose pulleys or extended crankshaft, prices on application.

CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS ^{100th} Anniversary COMPRESSORS

SIMPLE MACHINES • TWO STAGE

1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

The simple compressors listed on this page are two stage, air cooled.

These compressors are the result of our 100 years experience as a successful manufacturing concern and incorporate the many distinctive features of construction and design described below.

SELF-OILING—A simple positive pressure lubrication system—only one moving part—the oil pick-up ring revolving on the crankshaft—no complicated pumps nor gears.

INTERCOOLER—Extra long equipped with radiating fins—provides unusually effective cooling between stages. Located in cyclone of air from fan flywheel. Provided with relief valve which prevents development of excessive pressure in low pressure cylinder and intercooler, protecting compressor and motor.

TIMKEN MAIN BEARINGS—Tapered roller—reduce friction—insure long life—easy external adjustment.

CONNECTING ROD BEARINGS—Renewable—high grade babbit inserts.

CRANKSHAFT—Drop forged—Ground finish—Counter balanced for smooth operation.

VALVES—Disc type—heat treated—alloy steel—ground and lapped to optical flatness for quiet and efficient operation.

CRANKCASE—Totally enclosed—dust proof—sealed—no compression in crankcase—vacuum breather valve.

PRECISION BUILT—Crankshaft, pistons, piston rings and hardened piston pins ground to micrometer limits—detachable cylinders are honed—assures long life and minimum maintenance.

FAN FLYWHEEL—Balanced for smooth operation—cools the cylinders for greater efficiency—grooved for V belt drive or with crown face for flat belt drive.

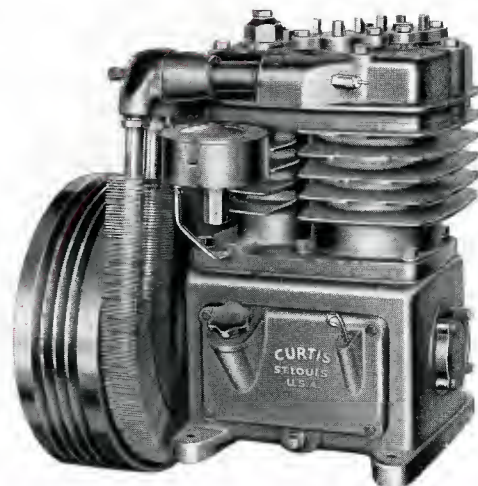
TESTS—Every compressor after being run in must pass an orifice test for efficiency.

HAND UNLOADER—Standard equipment on simple compressors—permits manual unloaded start—see page 21.

CENTRIFUGAL UNLOADER—For automatic starting service—assures positive automatic unloaded start under all conditions, see page 21—optional at extra charge.

CONSTANT RUNNING UNLOADER—Recommended when air is required continuously between predetermined limits. Allows compressor to alternately pump and idle, see page 21—optional at extra charge.

TWO STAGE
MODEL C-90
▶ ▶ ▶



TWO STAGE
MODEL C-97
◀ ◀ ◀

For details of construction see cross sections on pages 19 and 20.

SPECIFICATIONS

Model No.	Bore and Stroke Inches	No. of Cyl.	Usual Motor Size (HP) For 175 Lbs. Press.	Minimum Speed		Maximum Speed		Comp. Design See Page	Approx. Shipping Weight Domestic Lbs.	Export Data				Approx. Unit Dim. With Hand Unloader Incl. Flywheel			V-Grooved Flywheel	Code
				RPM	Cu. Ft. Displ.	RPM	Cu. Ft. Displ.			Net Wt. Lbs.	Gross Wt. Lbs.	Cubic Conts. Feet	Length Parallel To Shaft	Width	Height	O.D.		
C-90	3 $\frac{3}{8}$ -1 $\frac{7}{8}$ x2 $\frac{1}{4}$	2	1-1 $\frac{1}{2}$ -2	400	4.66	850	9.90	19	140	125	175	5	13 $\frac{3}{8}$ "	13 $\frac{1}{2}$ "	19"	13 $\frac{1}{2}$ "	2-B	PAZOP
C-96	4 $\frac{1}{2}$ -2 $\frac{5}{16}$ x3 $\frac{3}{4}$	2	3-5	400	12.88	800	25.76	20	210	180	255	7	17 $\frac{1}{4}$ "	16 $\frac{1}{2}$ "	23 $\frac{3}{8}$ "	16 $\frac{1}{2}$ "	3-B	PEBAM
C-97	6 $\frac{1}{4}$ -3 $\frac{3}{8}$ x3 $\frac{3}{4}$	2	7 $\frac{1}{2}$ -10	350	23.30	800	53.25	20	510	450	625	18	23 $\frac{3}{4}$ "	18"	27 $\frac{3}{4}$ "	18"	4-B	SADUC

Hand unloader is standard equipment. Constant running unloader only available at extra charge, for any size add code word PANYK.

Centrifugal unloader only (for C-90 and C-96), or vacuum unloader only (for C-97), available at extra charge, for any size add code word PAPDA.

Automatic starting and stopping device including centrifugal or vacuum unloader and pressure switch, for any size add code word PANUG.

If automatic starting and stopping device is ordered advise current specifications. See page 3 for electrical code.

CURTIS standard grooved flywheel is standard equipment. Crown faced flywheel available at no extra charge, for any size add code word PALTY. Compressors equipped with tight pulley only.

The above two stage compressors are suitable for operation up to 200 lbs. For higher pressures—information on request. Larger compressors, 50 CFM to 300 CFM inclusive, also available—information on request.



CURTIS PNEUMATIC MACHINERY DIVISION

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AIR COMPRESSORS

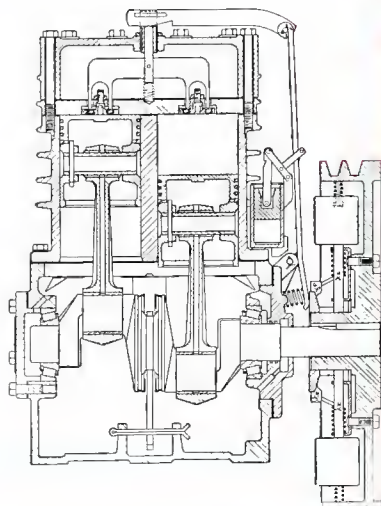
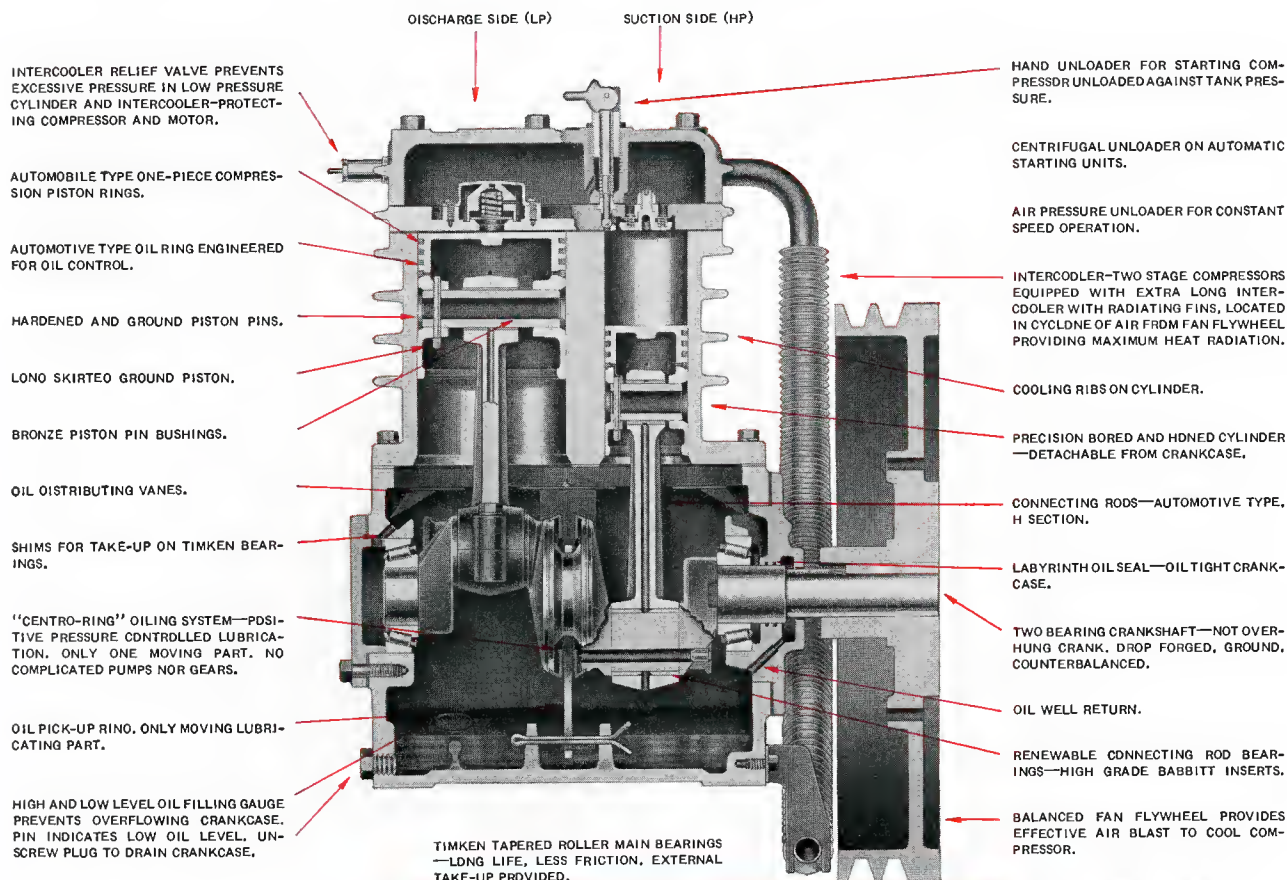
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OF SUCCESSFUL MANUFACTURING EXPERIENCE

CURTIS ^{100th Anniversary} COMPRESSORS

DISTINCTIVE DESIGN FEATURES

The cross section below shows the construction and design of **CURTIS MODEL C-90 TWO STAGE** compressor. The same basic design also applies to **CURTIS MODEL C-15, C-40 and C-50 SINGLE STAGE** compressors.

VALVES, DISC TYPE, HEAT TREATED, ALLOY STEEL, "MICRO" FINISH, GRIND AND LAPPED TO OPTICAL FLATNESS, FOR QUIET AND EFFICIENT OPERATION.

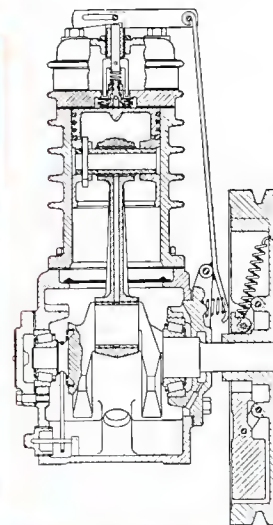


**SINGLE STAGE
TWIN CYLINDER
MODEL C-50**

**SINGLE STAGE
SINGLE CYLINDER
MODELS C-15 and C-40**

Every CURTIS compressor after being run in, must pass a rigid orifice test for efficiency, to see that it pumps to its rated capacity.

CURTIS compressors are built to the finest precision workmanship. All machining is held to extremely close working tolerances and is done with jigs and fixtures assuring absolute interchangeability of parts.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS ^{100th Anniversary} COMPRESSORS

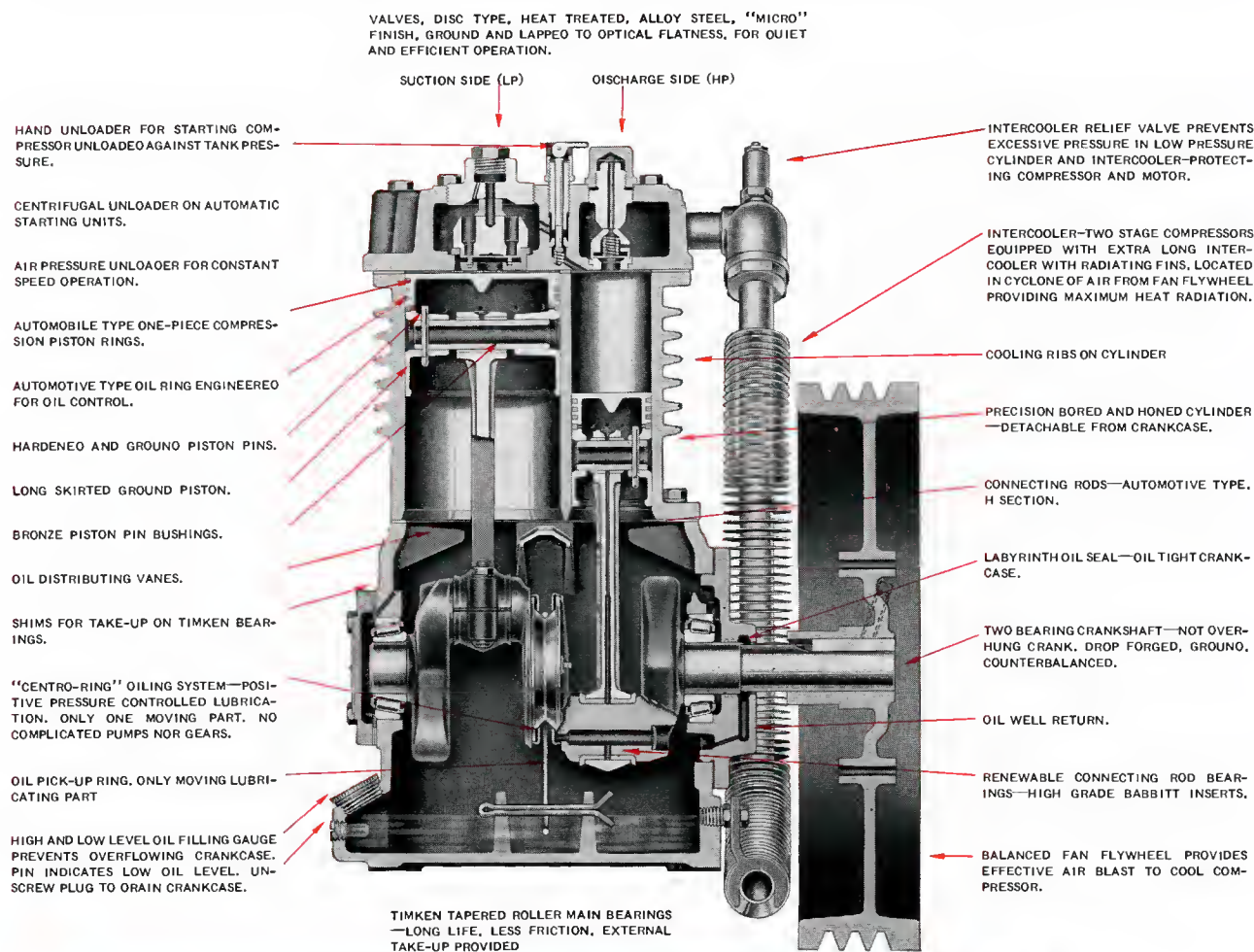
DISTINCTIVE DESIGN FEATURES

1854-1954
our 100TH year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

Curtis

AIR COMPRESSORS

The cross section on this page shows the construction and design of **CURTIS MODEL C-96 TWO STAGE** compressor. The same basic design applies to **CURTIS MODEL C-97, C-98 TWO STAGE** and **C-80 SINGLE STAGE** compressors.

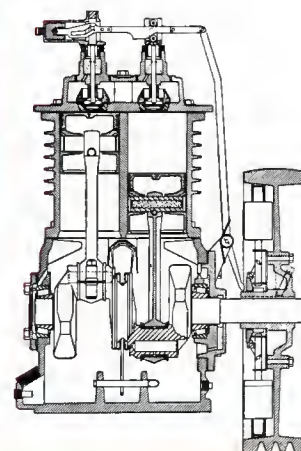


SINGLE STAGE TWIN CYLINDER MODEL C-80

▶ ▶ ▶

The many outstanding features found in CURTIS compressors are the result of our 100 years' experience as a successful engineering, designing and manufacturing concern.

CURTIS compressors are noted for their ability to stand up day after day under hard service conditions, with a minimum of maintenance and expense, and give you that service you have a right to expect.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS

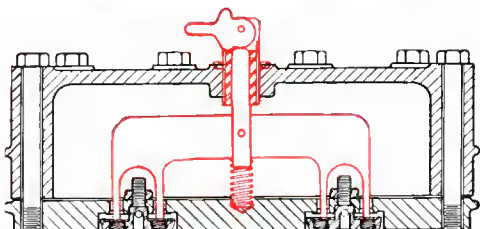
1854-1954
our **100TH** year
OF SUCCESSFUL MANUFACTURING EXPERIENCE

CURTIS COMPRESSOR UNLOADERS

All compressors should be equipped with a suitable unloading device, to prevent the compressor and driver (motor or gas engine) from starting against pressure.

The type unloader to use depends upon the service the compressor is to perform and the operating conditions.

Listed below are the various type unloaders provided by CURTIS to meet varying conditions.

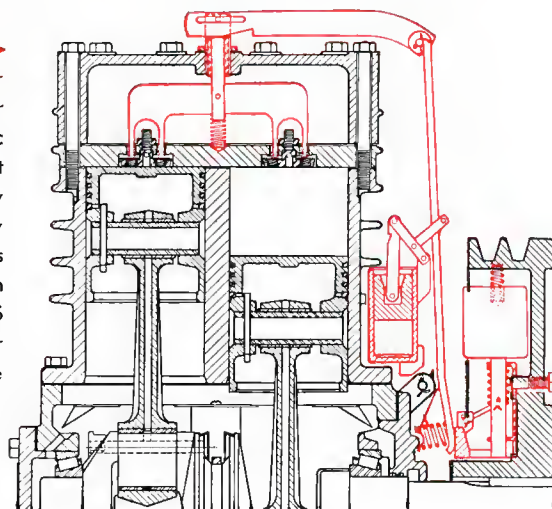
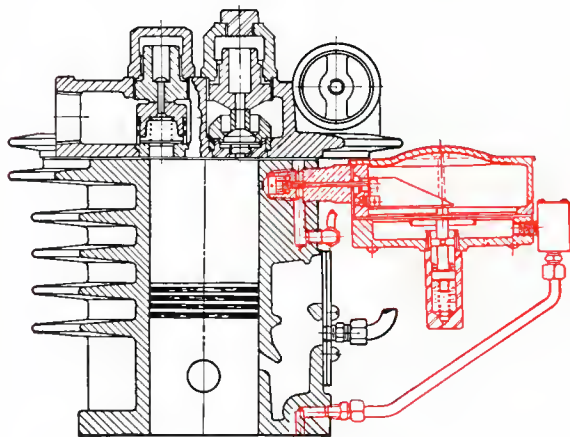


◀◀ HAND UNLOADER (For Manual Starting).

Consists of a trigger and cam, which when manually turned down permits the compressor to start unloaded. When compressor reaches full speed the cam is manually turned up and compression starts. It is furnished as standard equipment, without additional charge, on all simple compressors and on manual start outfits (unless another type of unloader is specifically ordered). It is generally used only when compressor operates at very infrequent intervals, such as for sprinkler service, engine starting, etc.

▶▶ CENTRIFUGAL UNLOADER (For Automatic Starting).

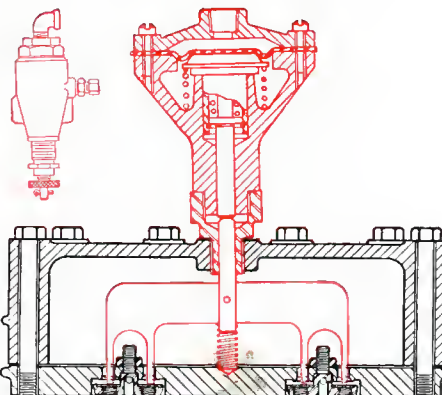
The centrifugal unloader accomplishes the same thing as the hand unloader but does it automatically instead of manually. It is used when the compressor is automatically started and stopped by means of an automatic electric pressure switch. It is furnished as standard equipment on all automatic start and stop units. For simple compressors it is furnished only when specifically ordered and at an extra charge. The centrifugal unloader automatically unloads the compressor when it stops and provides unloaded start. It is mounted externally on the compressor, is readily accessible, and simple in design. Being mechanically operated by speed of the compressor the CURTIS centrifugal unloader positively unloads all cylinders and the intercooler whenever the compressor stops, regardless of reason, even when there is an interruption of electric current.



◀◀ VACUUM UNLOADER (For Automatic Starting on C-97 and C-98 compressors). The vacuum unloader serves the same purpose as the centrifugal unloader and is furnished as standard equipment on all automatic start and stop units incorporating the C-97 and C-98 compressors. For simple compressors of these sizes it is furnished only when specifically ordered and at extra charge. The vacuum unloader is externally mounted. It is operated by the vacuum created in the crankcase of the compressor. When the compressor stops, the vacuum is broken and the vacuum unloader exhausts the air from both high and low pressure cylinders and intercooler. The compressor remains unloaded until the motor and compressor have both reached full operating speed.

▶▶ CONSTANT RUNNING UNLOADER—AIR PRESSURE UNLOADER (For Contin-

uous Operation, Alternately Pumping and Running Idle.) This type of unloader is recommended when the service requires more or less continuous use of air. At maximum pressure it allows the compressor to run idle (pump no air). When the pressure drops it allows the compressor to resume pumping. A compressor equipped with constant running unloader runs continuously but alternately pumps and idles. It is generally used for industrial applications, for paint spraying, and for gas engine driven outfits. This type of unloader should never be used when automatic pressure switch is used to control start and stop of the motor. When tank pressure reaches a predetermined pressure the unloader opens the suction valve and the compressor idles. When pressure drops the unloader automatically reverses and compression is resumed. Maintains tank pressure between two well defined limits. This type of unloader is also equipped with a hand by-pass for manually unloading before starting.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

EST. **CURTIS** 1854
ST. LOUIS

CURTIS ASME AIR TANKS

CURTIS BUILT—CURTIS air storage tanks are manufactured in our own plant by the most modern methods. Automatic electric welding provides complete penetration, as well as smooth seams which give CURTIS tanks a superior appearance.

ASME SPECIFICATIONS—CURTIS tanks are made in accordance with the rigid specifications of the American Society of Mechanical Engineers (ASME), for 200 lbs. working pressure. They carry the ASME label and are individually tested hydrostatically and inspected by an authorized insurance inspector at 400 lbs.

ASME tanks are now required in many localities and are rapidly being adopted by others. We furnish receivers built only to ASME specifications and recommend same in all cases. For localities which have special requirements for air tanks, such as the Dominion of Canada, the State of Massachusetts and the District of Columbia, as well as those which require inspection by the National Board of Pressure Vessel Inspectors, tanks and fittings can be supplied conforming to such requirements.

MOUNTING—These tanks may be used either horizontally or vertically (to economize space, vertical tanks are usually advised). Curtis tanks are convex both ends. Steel feet welded to the tank for either horizontal or vertical mounting can be furnished at a slight extra charge. Be sure to specify when ordering if the tank is to be supplied with feet, otherwise feet are not furnished.

FITTINGS—Consist of ASME pop safety valve, 300 lbs. air gauge, drain cock and connecting pipe fittings. Tanks are regularly furnished with fittings unless otherwise specified.

RECOMMENDATIONS—The receiver should be placed in a cool place, so that all moisture will be precipitated as soon as possible.

All tanks should be drained daily to eliminate condensed moisture. A tank not frequently and regularly drained will accumulate several gallons of water and oil emulsion, conducive to corrosion and tank explosion.

It is advisable that supply and discharge pipe should not be in line where they enter and leave the tank, but should enter and leave at right angles so as to prevent as much as possible a direct flow of air from one pipe to the other.

When the air has to be carried a considerable distance before it is to be used, a second receiver is recommended at the end of the pipe main, so that the flow of air and pressure may be equalized.

It is neither practical nor economical and is definitely unsafe to use cheap, improperly constructed tanks, or those intended for other purposes than compressed air, or for pressures above the working pressure for which the tank is designed regardless of test pressure.

Curtis

AIR COMPRESSORS

1854-1954
our 100TH year
OF SUCCESSFUL MANUFACTURING EXPERIENCE



VERTICAL TANK



HORIZONTAL TANK

SPECIFICATIONS • ASME OR NATIONAL BOARD

Size Inches	Capacity in Gallons	Capacity in Cubic Feet	Maximum Working Pressure, Lbs.	Usual Size of Compressor Tank is Suited for	Approximate Weight, Domestic or Export, Net or Gross, Lbs.	Export Dimensions Cubic Feet	Code (With Fittings) (Without Feet)
16 x 29	20	2.83	200	C-15 and smaller	95	4.5	GAWAN
16 x 41	30	4.17	200	C-15, C-40	135	6.5	GAWKO
20 x 50	60	8.07	200	C-40, C-50, C-90	240	12.0	GAWNY
20 x 66	80	10.80	200	C-90, C-96, C-97	315	17.0	GAWOS
24 x 48	80	10.90	200	C-90, C-96	320	17.0	GAVMO
24 x 70	120	16.00	200	C-97, C-98	425	26.0	GAVAR

Tanks are regularly supplied **with** fittings and **without** feet unless otherwise specified.



CURTIS PNEUMATIC MACHINERY DIVISION

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Curtis

AIR COMPRESSORS



CURTIS AIR FITTINGS AND ACCESSORIES

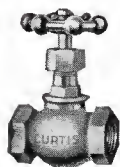


Fig. 25



Fig. 27



Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 31BA



Fig. 31CA

AIR OUTLET VALVES (Fig. 25)

These valves are especially recommended for air lines. Made of heavy cast brass, suitable for pressures up to 200 lbs.

Fig. 25A, 1/4" Needle valve	Code GAZYZ
Fig. 25AA, 3/8" Needle valve	Code GEBIT
Fig. 25B, 1/2" Needle valve	Code GEBAR
Fig. 25C, 3/4" Needle valve	Code GEBES
Fig. 25BA, 1/2" Globe disc valve	Code GEBOW

HOSE TO PIPE CONNECTION (Fig. 27)

Hose connection attachment suitable for screwing into standard pipe fittings. Packed one in 1 carton. Fig. 27A, 1/4" Pipe to 1/4" hose connection only Code GEBPU

DRAIN COCK (Fig. 28)

An air tank should always be provided with a drain cock and regularly drained of the accumulated moisture and oil emulsion. The CURTIS drain cock is simple and tight, having no stem nor stuffing box, and is self-cleaning. Packed one in a carton.

Fig. 28, 1/4" only Code GECET

AIR PRESSURE GAUGE (Fig. 29)

These gauges are of high grade construction, accurate and intended especially for air pressure work; block Japanned case with nickel rim; packed one in a carton.

Fig. 29, 2 1/2" (300 lbs.) 1/8" male pipe thread	Code GECME
Fig. 29A, 2 1/2" (60 lbs.) 1/8" male pipe thread	Code GEBYV
Fig. 29B, 4 1/2" (300 lbs.) 1/4" male pipe thread	Code GECNI

CHECK VALVES (Fig. 30)

When a check valve is used in an air line, it should be of the disc or dash pot type, which opens and closes only when there is a definite change in the direction of the flow of the air. The ordinary check valve, which opens and closes with every pulsation of the compressor, soon hammers itself to pieces and will not remain tight, requiring frequent replacement. The valve is usually furnished two sizes smaller than the discharge pipe of the compressor, the valve being installed as near the tank as possible. Packed one in a carton.

Fig. 30A, 1/4" Horizontal disc type	Code GECOZ
Fig. 30B, 3/8" Horizontal disc type	Code GECPO
Fig. 30BB, 1/2" Horizontal disc type	Code GECAS
Fig. 30BC, 3/4" Horizontal disc type	Code GECLA
Fig. 30C, 1" Horizontal disc type	Code GECRU

STANDARD POP SAFETY VALVES (Fig. 31)

Our own design, a result of many years of experience with the almost universal leakage of the ordinary type of pop valve after a short period of service. Suitable for pressures up to 200 lbs.

Fig. 31A, 1/4" Standard pop valve	Code GECUV
Fig. 31B, 3/8" Standard pop valve	Code GECYX

Standard pressure settings as below. For other pressure settings—prices on application.

Fig. 31A—50 lbs., 160 lbs., 185 lbs.

Fig. 31B—50 lbs., 160 lbs., 185 lbs.

ASME POP SAFETY VALVES (Fig. 31BA)

In localities where ASME specification tanks are required and in Canada, an ASME pop valve must be used. The pop valve is generally set at about ten pounds higher than the cut out pressure of the compressor. ASME pop valves are not adjustable but are suitable only for the pressure stamped on them.

Fig. 31BA, 3/8" ASME pop valve	Code GEFVY
Fig. 31CA, 1/2" ASME pop valve	Code GEDMA
Fig. 31MA, 3/8" Massachusetts pop valve	Code GEKRA

Standard pressure settings as below. For other pressure settings—prices on application.

Fig. 31BA—50 lbs., 160 lbs., 185 lbs.

Fig. 31CA—160 lbs.

Fig. 31MA—165 lbs., 200 lbs.

CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



CURTIS AIR FITTINGS AND ACCESSORIES

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AIR COMPRESSORS

1854 • 1954
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Fig. 32



Fig. 34AK



Fig. 34B & 34C

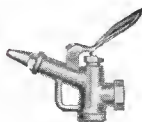


Fig. 36AL

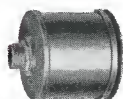


Fig. 37B or C



PRESSURE REDUCING VALVES (Fig. 32)

These valves can readily be adjusted by turning the adjusting screw so as to reduce an initial pressure of 200 lbs., down to a resultant pressure ranging between 30 and 100 lbs. Can also be furnished for lower pressures when desired. Valve is of bronze construction, with a composition diaphragm which will not rot out or be affected by moisture. Packed one in a carton.

Fig. 32C, 1/4" size Code GEDIZ
Fig. 32D, 1/2" size Code GEGVU

QUICK DETACHABLE COUPLINGS (Fig. 34)

The only satisfactory type of coupling we have been able to find in our years of experience in pneumatic machinery. Self-locking, quickly detachable, rustless, leak-proof and designed for rugged service.

Fig. 34AK, 1/4" pipe to 1/4" hose† Code GEFB
Fig. 34B, 3/8" pipe to 3/8" hose* Code GEFAW
Fig. 34C, 1/2" pipe to 1/2" hose* Code GEFEZ
†Fig. 34AK coupling has a check valve to hold the air in the line when hose is detached.

*These couplings are furnished for hose to hose if desired, at same price. Be sure to specify if so wanted, otherwise hose to pipe couplings will be furnished. Halves of coupling 34B interchange with 34C and vice versa.

BLOW PIPE AIR NOZZLES (Fig. 36)

Valve opens by pressing lightly on the lever. Stuffing box prevents leakage. Conical valve seat permits regrounding. Non-Corrosive body, stem and nozzle. Light, convenient to hold in the hand. Especially desirable for blowing out chips and drillings from machine tools, dust from motors, dusting out the interior of cars and similar work. Opening 1/8", shank suitable for 1/4" hose. Packed one in a carton.

Fig. 36AL, short nozzle, 3" long, no hose Code GEGAZ
Fig. 36BL, long nozzle, 18" long, no hose Code GEFYC

INTAKE AIR STRAINERS (Fig. 37)

Prevents dust and foreign matter in the atmosphere from being taken into the cylinder of compressor, thus precluding scored or worn cylinders and rings, also helping keep valves clean and tight.

Fig. 37A, 1/2" pipe connection Code GEMYL
Fig. 37B, 3/4" pipe connection Code GEMZO
Fig. 37C, 1" pipe connection Code GENAD
Fig. 37E, 2" pipe connection Code GEPWA

CURTIS "MERIT BRAND" AIR HOSE

A hose made up to CURTIS specifications, as a result of our years' experience in manufacturing pneumatic machinery. Has an oil proof interior Para rubber lining, surrounded by a canvas reinforcement molded into the outer rubber tubing. Furnished either in 20 ft. lengths with fittings, or by the foot in any length. 1/4" hose is made up regularly in 20 foot lengths with fire chuck on one end and hose to pipe connection on the other end. Code GEGEB

AUTOMATIC PRESSURE SWITCHES (Without Pressure Relief Valve)

These switches automatically start and stop the motor of electrically driven air compressors at predetermined tank pressures. Standard equipment on all automatic start and stop and all dual control units.

	Standard Cut-out pressure	Standard Cut-in pressure
Fig. PS-1	175 lbs.	140 lbs.
Fig. PS-2	150 lbs.	120 lbs.
Fig. PS-3	100 lbs.	80 lbs.
Fig. PS-4	40 lbs.	30 lbs.

Other pressure settings available, prices on application.

MANUALLY OPERATED MOTOR STARTING SWITCHES (MANUAL DISCONNECT) PROVIDING THERMAL OVERLOAD PROTECTION

These switches are recommended for use with all motor driven compressor units (where automatic motor starter is not required). They provide overload and under voltage protection as well as protecting two or three phase motors against single phasing. Furnished at extra charge — see price list.

AUTOMATIC MOTOR STARTERS (MAGNETIC ACROSS-THE-LINE TYPE) PROVIDING THERMAL OVERLOAD PROTECTION

These starters are essential and are required for use with automatic start and stop and dual control compressor outfits equipped with 5 HP single phase, 7 1/2 HP, 10 HP and 15 HP single, two and three phase motors. They provide overload and under voltage protection as well as protecting two and three phase motors against single phasing. Furnished at extra charge — see price list.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS



HOW TO SELECT YOUR AIR COMPRESSOR

CAPACITY AND SIZE DATA

THE CORRECT SIZE AND TYPE OF COMPRESSOR is of such importance that the following data is furnished to assist you in making the proper selection.

This catalog and the tables below cover CURTIS compressors ranging in size up to 15 HP inclusive, affording a complete line from which to make a suitable selection.

For shops requiring a large volume of air, CURTIS is prepared to furnish compressors up to 50 HP inclusive.

CURTIS also manufactures Automobile Lifts and Car Washers. Write for special bulletins.

TABLE 1
CUBIC FEET PER MINUTE REQUIRED TO OPERATE
VARIOUS PNEUMATIC EQUIPMENT

Equipment Air Pressure Range	Type of Device	Average Free Air Required C.F.M.
GENERAL EQUIPMENT		
70-100	① Air Filter Cleaner.....	3.0
70-100	① Body Polisher.....	2.0
70-100	① Body Sander.....	5.0
70-100	Brake Tester.....	3.5
70-100	① Carbon Remover.....	3.0
120-150	① Car Rocker.....	5.75
70-100	① Car Washer.....	8.5
70-100	Dusting Gun (Blowgun).....	2.5
120-150	Grease Gun (High-pressure)...	3.0
HAMMERS		
70-100	① Air Hammer.....	16.5
70-100	① Fender Hammer.....	8.75
LIFTS		
70-100	Hoist (1-ton).....	1.0
145-175	Hydraulic Lift.....	② 5.25
120-150	Pneumatic Garage Door.....	2.0
70-100	Radiator Tester.....	1.0
70-100	Spark Plug Cleaner.....	5.0
70-100	Spark Plug Tester.....	.5
SPRAY GUNS		
70-100	① Engine Cleaner.....	5.0
70-100	① Paint Spray Gun (Production Type).....	8.5
70-100	① Paint Spray Gun (Touch Up Type).....	2.25
70-100	① Paint Spray Gun (Undercoat- ing Type).....	19.0
70-100	Spring Oiler.....	3.75
70-100	Transmission and Differential Flusher.....	3.0
TIRE TOOLS		
120-150	Rim Stripper.....	6.0
120-150	Tire Changer.....	1.0
120-150	Tire Inflation Line.....	1.5
120-150	Tire Spreader.....	1.0
120-150	① Vacuum Cleaner.....	6.5

TABLE 2
COMPRESSOR CHART

Compressor Pressures p.s.i.	INTERMITTENT USE ③	Horse Power of Compressor Required		CONTINUOUS USE ④
	Free Air Consump- tion in Cubic Feet Per Minute of Total Equipment (C. F. M.)	Two- Stage	Single- Stage	Free Air Consump- tion in Cubic Feet Per Minute of Total Equipment (C. F. M.)
70# CUT IN AND 100# CUT OUT	Up to 6.6	.....	1/2	Up to 1.9
	6.7 — 10.5	.....	3/4	2.0 — 3.0
	10.6 — 13.6	.....	1	3.1 — 3.9
	Up to 14.7	1	.....	Up to 4.2
	13.7 — 20.3	.....	1 1/2	4.0 — 5.8
	14.8 — 22.4	1 1/2	.....	4.3 — 6.4
	20.4 — 26.6	.....	2	5.9 — 7.6
	22.5 — 30.4	2	.....	6.5 — 8.7
	30.3 — 46.2	3	.....	8.8 — 13.2
	46.3 — 60.0	5	.....	13.3 — 20.0
120# CUT IN AND 150# CUT OUT	60.1 — 73.0	7 1/2	.....	20.1 — 29.2
	73.1 — 100.0	10	.....	29.3 — 40.0
	Up to 3.8	.....	1/2	Up to 1.1
	3.9 — 7.3	.....	3/4	1.2 — 2.1
	7.4 — 10.1	.....	1	2.2 — 2.9
	Up to 12.6	1	.....	Up to 3.6
	10.2 — 15.0	.....	1 1/2	3.0 — 4.3
	12.7 — 20.0	1 1/2	.....	3.7 — 5.7
	15.1 — 20.0	.....	2	4.4 — 5.7
	20.1 — 25.9	2	.....	5.8 — 7.4
145# CUT IN AND 175# CUT OUT	26.0 — 39.2	3	.....	7.5 — 11.2
	39.3 — 51.9	5	.....	11.3 — 17.3
	52.0 — 67.5	7 1/2	.....	17.4 — 27.0
	67.6 — 92.5	10	.....	27.1 — 37.0
	Up to 11.9	1	.....	Up to 3.4
	12.0 — 18.5	1 1/2	.....	3.5 — 5.3
	18.6 — 24.2	2	.....	5.4 — 6.9
	24.3 — 36.4	3	.....	7.0 — 10.4
	36.5 — 51.0	5	.....	10.5 — 17.0
	51.1 — 66.0	7 1/2	.....	17.1 — 26.4
	66.1 — 88.2	10	.....	26.5 — 35.3

① These devices are to be considered as CONTINUOUS USE devices when operating normally.

All other devices listed are to be considered as INTERMITTENT USE devices when operating normally.

When the devices consist of a large number of the CONTINUOUS USE type, and if only a few are to be used at one time, the compressor should have a capacity at least equal to the total consumption of all those tools used simultaneously, in addition to the consumption of all the INTERMITTENT USE tools, if any.

② Note: This is for 8,000 lbs. capacity. Add .65 c.f.m. for each additional 1,000 lbs. capacity.

③ These figures are not to be regarded as the capacity of the compressor in free air output, but instead, are the combined free air consumption of all the tools in the establishment, as well as tools anticipated as future additional equipment. A factor has been introduced to take into account intermittent operation of tools likely to be in use simultaneously in the average garage or service station. (See Example 1 on page 26 for the use of the figures given in this column.)

④ These figures are to be employed when the nature of the device is such that normal operation requires a continuous supply of compressed air. Therefore, no factor for intermittent operation has been used, and the figures given represent the compressor capacity in free air output. (See Example 2 on page 26 for the use of the figures given in this column.)

FOR APPLICATION OF ABOVE TABLES SEE PAGE 26.

CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.



HOW TO SELECT YOUR AIR COMPRESSOR

CAPACITY AND SIZE DATA

Curtis
AIR COMPRESSORS



THE PROCEDURE BELOW is to be used in connection with the tables and information shown on page 25.

- (1) List all devices to be operated by compressed air, separating those classified as CONTINUOUS USE from INTERMITTENT USE devices. See note 1, page 25.
- (2) Refer to Table 1, Page 25 and note opposite each device on your list the pressure range and volume of air required.
- (3) Total separately the volume of air required by the INTERMITTENT USE and CONTINUOUS USE devices.
- (4) Then proceed according to the examples below, as follows:
 - (a) Where all devices are INTERMITTENT USE follow Example 1.
 - (b) Where all devices are CONTINUOUS USE follow Example 2.
 - (c) Where some devices are INTERMITTENT USE and some CONTINUOUS USE follow Example 3.

Note: In applying Table 2 (page 25) use the highest pressure range you have on your list.

Example 1:—All devices INTERMITTENT USE.

2—Car Lifts.....	@	5.25 c.f.m. = 10.5 c.f.m.	145 to 175 p.s.i.
2—Grease Guns.....	@	3.00 c.f.m. = 6.0 c.f.m.	120 to 150 p.s.i.
1—Spring Oiler.....	@	3.75 c.f.m. = 3.75 c.f.m.	70 to 100 p.s.i.
1—Spark Plug Cleaner.....	@	5.0 c.f.m. = 5.0 c.f.m.	70 to 100 p.s.i.
2—Tire Inflators.....	@	1.5 c.f.m. = 3.0 c.f.m.	120 to 150 p.s.i.
1—Dusting Gun.....	@	2.5 c.f.m. = 2.5 c.f.m.	70 to 100 p.s.i.
1—Trans. and Diff. Flusher.....	@	3.0 c.f.m. = 3.0 c.f.m.	70 to 100 p.s.i.
		Total	33.75 c.f.m.

In Table 2, page 25, under the column INTERMITTENT USE, and opposite the pressure range required, 145 p.s.i. to 175 p.s.i., find the line indicating 33.75 c.f.m. or more. The compressor required will be 3 HP, two-stage unit.

Example 2:—All devices CONTINUOUS USE.

1—Fender Hammer.....	@	8.75 c.f.m. = 8.75 c.f.m.	70 to 100 p.s.i.
1—Paint Spray Gun (Prod. Type).....	@	8.5 c.f.m. = 8.5 c.f.m.	70 to 100 p.s.i.
1—Body Polisher.....	@	2.0 c.f.m. = 2.0 c.f.m.	120 to 150 p.s.i.
1—Touch-Up Type Spray Gun.....	@	2.25 c.f.m. = 2.25 c.f.m.	70 to 100 p.s.i.
1—Vacuum Cleaner.....	@	6.5 c.f.m. = 6.5 c.f.m.	120 to 150 p.s.i.
		Total	28.00 c.f.m.

In Table 2, page 25, under the column CONTINUOUS USE, and opposite the pressure range required, 120 p.s.i.-150 p.s.i., find the line indicating 28.00 c.f.m. or more. The compressor needed will be a 10 HP, two-stage unit.

Example 3:—Some devices INTERMITTENT USE and some CONTINUOUS USE

INTERMITTENT USE				CONTINUOUS USE			
1—Hydraulic Lift.....	@	5.25 c.f.m.	145-175 p.s.i.	1—Paint Spray Gun.....	@	8.5 c.f.m.	70-100 p.s.i.
1—Grease Gun.....	@	3.0 c.f.m.	120-150 p.s.i.	(Production Type)			
1—Spring Oiler.....	@	3.75 c.f.m.	70-100 p.s.i.	1—Body Polisher.....	@	2.0 c.f.m.	70-100 p.s.i.
		Total	12.00 c.f.m.			Total	10.5 c.f.m.

In Table 2, page 25, under column INTERMITTENT USE, and opposite the pressure range required, 145 p.s.i. to 175 p.s.i., find the line indicating 12.0 c.f.m. or more. The compressor required will be 1½ HP, two-stage unit.

In Table 2, page 25, under column CONTINUOUS USE, select a unit having a delivery of 10.5 at 70-100 p.s.i., as that pressure range is required to operate the above equipment. This unit will be a 3 HP, two-stage compressor.

To supply one compressor rather than two, for the above equipment, total the HP, which in this case would be 4½ HP operating at a pressure range of 145 to 175 p.s.i. This is a 5 HP, two-stage unit.

Abbreviation c.f.m. = Cubic Feet Per Minute.
p.s.i. = Pounds Per Square Inch.

NOTE:—Do not select a compressor of less than 1½ HP if the pneumatic equipment includes a car lift of 8,000 lbs. capacity.
Data on pages 25 and 26 is adapted from booklet "How to Select an Air Compressor" published by the P.A.E.A.



CURTIS PNEUMATIC MACHINERY DIVISION

OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

Curtis

AIR COMPRESSORS



GENERAL INFORMATION ABOUT AIR COMPRESSORS

IMPORTANCE OF THE AIR COMPRESSOR

In most establishments the air compressor is the central power plant for operating many kinds of profit producing equipment, such as paint spray and lubricating guns, auto lifts, air hammers, drills, etc. New and practical air operated tools and equipment are constantly being developed.

A dependable and efficient compressor—large enough to maintain the maximum air pressures required when the air operated equipment is in maximum use is there-

fore an absolute necessity. If the compressor breaks down many profit producing services are at a standstill. If the compressor is too small or too inefficient to keep up with the demand, all of the air operated equipment is slowed down resulting in lost time and increased cost for all services and operations.

It is always advisable to purchase a compressor larger than required for immediate needs, to allow for increased air requirements.

PISTON DISPLACEMENT AND ACTUAL AIR DELIVERY

Air compressors are rated by piston displacement, in terms of cubic feet of free air per minute. The piston displacement depends upon the number of cylinders, bore, stroke and compressor speed.

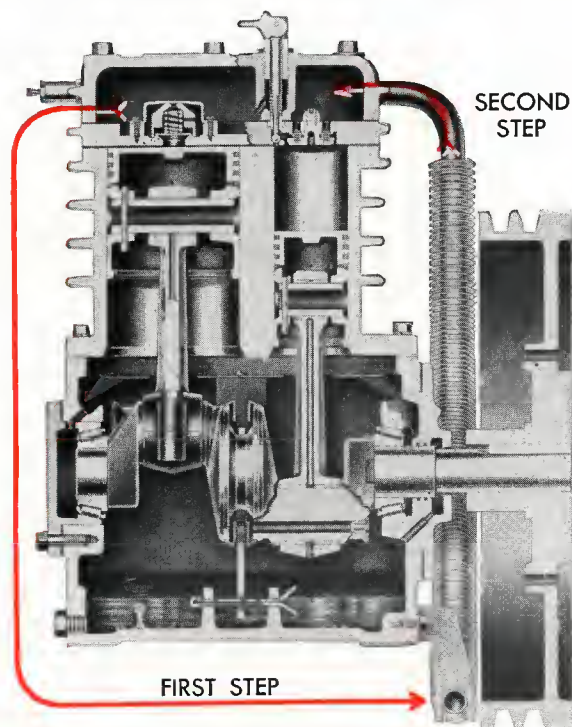
In single-stage compressors the displacement is the volume of the cylinder or cylinders, multiplied by the revolutions per minute.

In two-stage compressors, only the larger (low pressure) cylinder or cylinders are used in determining the displacement; the small (high pressure) cylinder adds nothing to the displacement, as it does not draw air from the atmosphere, but merely boosts the pressure of the

air delivered to it from the low pressure cylinder or cylinders, pumping it into the tank.

The air actually delivered to the tank by an air compressor is always less than the piston displacement. It is the air actually delivered that is available for the operation of pneumatic tools and equipment. The better the design of the compressor, the manufacturing facilities, the material and workmanship, the higher the resultant efficiency of the actual air delivery.

A poorly designed and constructed compressor can have the same or even a greater piston displacement than the best, but there will be a definite and considerable difference in the actual delivery.



Showing path of air from low-pressure cylinder thru intercooler into the high-pressure cylinder in two-stage compression.

SINGLE-STAGE AND TWO-STAGE COMPRESSORS

Single-stage compressors have one or more cylinders, each taking in air at atmospheric pressure and each pumping directly into the air tank, thereby compressing from atmospheric pressure to the final pressure IN ONE STEP.

Two-stage compressors usually have two cylinders, one of which is larger than the other. Air at atmospheric pressure is taken into the larger (low pressure) cylinder and pumped through an intercooler into the smaller (high pressure) cylinder, thence into the tank. Compression from atmospheric pressure to the final pressure is, therefore, IN TWO STEPS.

In the compression of air, work is performed, and consequently heat is developed, the degree of heat increasing with the pressure. The heat is not caused by the friction of the working parts, but is the result of compressing molecules of air in the cylinder, so that they occupy a smaller space than at normal atmospheric pressure. When air is heated it expands, and when cooled it contracts. The higher the temperature of the compressed air when it reaches the discharge port of the compressor, the greater the shrinkage as it cools to room temperature in the discharge line and tank, consequently the less efficient the compressor.

GENERAL INFORMATION ABOUT AIR COMPRESSORS

Curtis

AIR COMPRESSORS

CURTIS TWO-STAGE COMPRESSORS

All CURTIS two-stage compressors have low and high pressure cylinders so proportioned that each performs about the same amount of work. The air is compressed in the low pressure cylinder to only 25 to 40 lbs. pressure, resulting in high volumetric efficiency (the ratio of the volume of air actually delivered to the piston displacement). The air then passes to the high pressure cylinder through an unusually long intercooler, where much of the heat generated in the first stage of compression is removed, resulting in a low final temperature of compression and, therefore, better cylinder lubrication which provides long life, and also giving CURTIS compressors high overall efficiency and reduced power consumption.

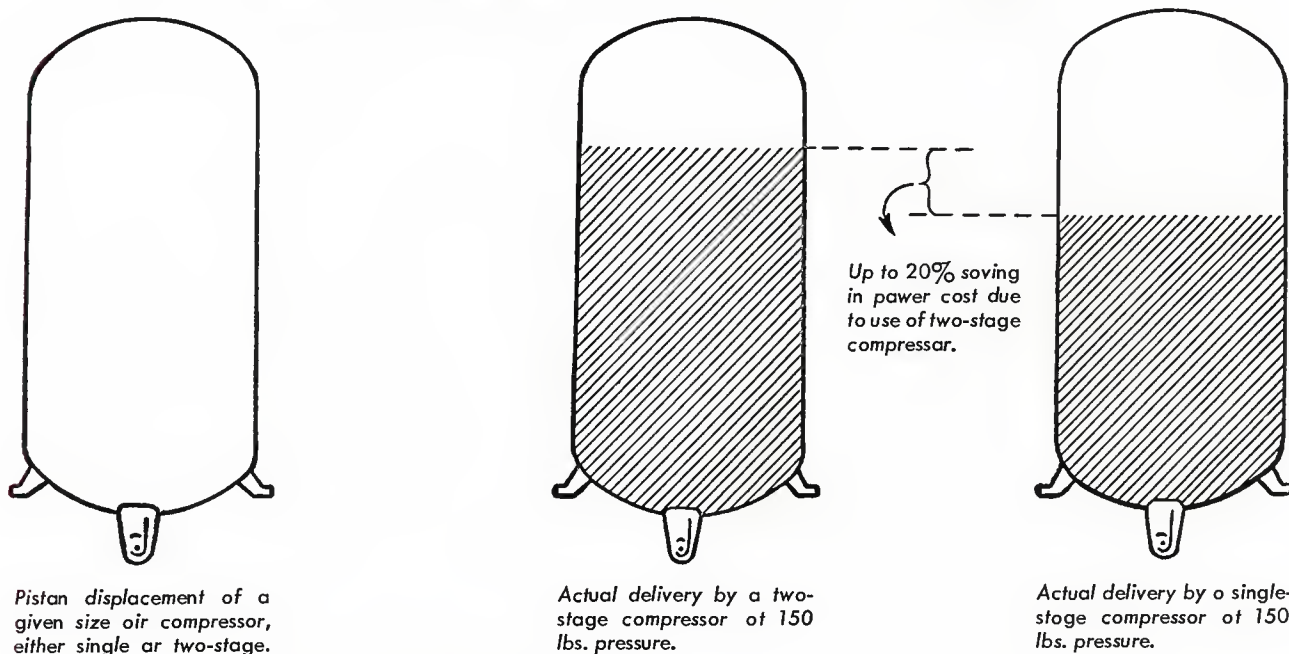
The more efficient the intercooler the greater overall efficiency of a two-stage compressor. CURTIS intercoolers are longer than in most compressors and are cooled throughout practically their entire length by the air blast from the fan flywheel. They are equipped with attached radiating fins thus providing maximum heat radiating surface. CURTIS two-stage compressors possess a higher overall efficiency because they have more effective intercooling. In a single-stage compressor operating at 150 lbs.

pressure, the peak heat during compression is between 400 degrees and 500 degrees F. Only a small part of the compression heat is removed by radiation from the cylinder walls and head.

In a properly designed and built two-stage compressor the peak temperature of compression is well below that of a single-stage machine operating at the same pressure, because of the superior cooling facilities made by the two-stage principle of compression. Well designed and constructed two-stage compressors will deliver up to 20% more air than a single-stage with the same power consumption, or the same volume with proportionately less power consumption. The saving in power will soon pay for the extra cost of a two-stage compressor over a single-stage.

A two-stage compressor is not only more efficient, but it will pump to higher pressures, has longer life, greater reserve capacity because of its ability to operate continuously, and supplies cooler air to the tank.

BELOW IS A GRAPHIC ILLUSTRATION SHOWING GREATER ACTUAL AIR DELIVERY AND HIGHER EFFICIENCY OF THE TWO-STAGE COMPRESSOR



CURTIS COMPRESSORS ARE MADE IN THREE TYPES:

- Single-stage, single cylinder, air-cooled.
- Single-stage, twin cylinder, air cooled.
- Two-stage (one low pressure and one high pressure cylinder), air cooled.

CURTIS single-stage compressors will operate satisfactorily and efficiently under continuous operating conditions against

100 lbs. pressure or less, or intermittently against 100 to 150 lbs. pressure.

CURTIS two-stage compressors will operate satisfactorily and efficiently under continuous operating conditions against 225 lbs. pressure or less and intermittently against higher pressure—in some sizes up to 500 lbs.



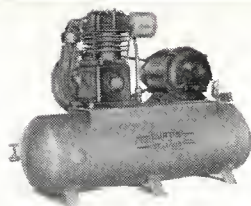
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OF CURTIS MANUFACTURING CO. • ST. LOUIS 20, MISSOURI, U. S. A.

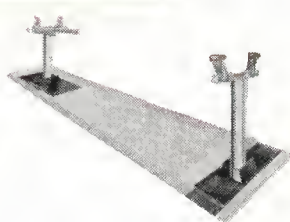
1854 **100th** 1954
year

DEPENDABLE *Curtis* PRODUCTS

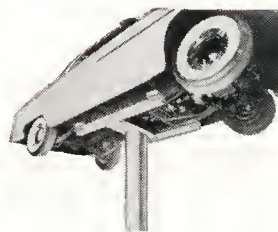
FOR AUTOMOTIVE SERVICE



AIR COMPRESSORS— $\frac{1}{4}$ to 15 horsepower.
...up to 78 cu. ft. per minute...
tank or base mounted.

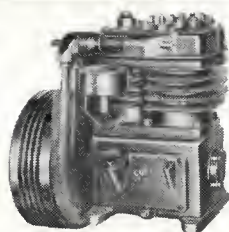


LIFTS—Two post or single post for all
passenger cars and light trucks.



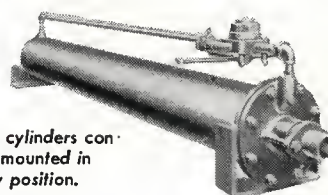
HIGH PRESSURE CAR WASHER
—300 pounds pressure for
better, faster car washing and
increased profits.

FOR INDUSTRIAL USE



COMPRESSORS—Up to 50 horsepower, 300 cu. ft.
per minute... Timken bearing equipped... precision
built... also available in base mounted units.

AIR CYLINDERS AND AIR HOISTS—for lifting,
lowering, pushing or pulling. Strong steel construction,
yet light in weight, low in price.

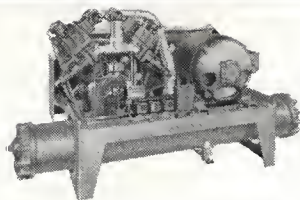


Air cylinders can
be mounted in
any position.

Pendant
air-hoists for
lifting and
lowering

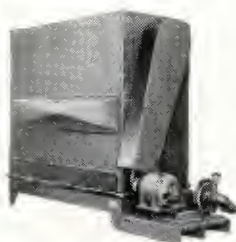


FOR REFRIGERATION AND AIR CONDITIONING



Condensing Units—
up to 100 tons.

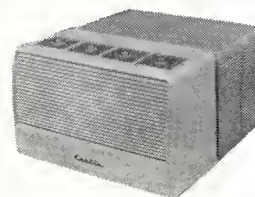
Evaporative Condensers,
cooling towers, and
air handling units—
up to 100 tons.



**Packaged Air
Conditioners**—
2, 3, 5, 7 $\frac{1}{2}$ and
10 tons and 15-ton
central type units.



**All-in-one residential cooling,
and heating units for
year-round comfort.**



Room Air Conditioners.
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